THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

CATALOGUE

1989-1992

The University of North Carolina at Wilmington

Undergraduate and Graduate Catalogue
1989 - 1990

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The University of North Carolina at Wilmington

Undergraduate and Graduate Catalogue

1989-1990

Bulletin 41

The University of North Carolina at Wilmington is committed to equality of educational opportunity and does not discriminate against applicants, students, or employees based on race, color, national origin, religion, sex, age, or handicap. Moreover, The University of North Carolina at Wilmington is open to people of all races and actively seeks to promote racial integration by recruiting and enrolling a larger number of black students.

Front Cover Photo: Jack Davis

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All provisions, regulations, degree programs, course listings, etc., in effect when this catalogue went to press are subject to revision by the appropriate governing bodies of The University of North Carolina at Wilmington.

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F. P. Fensel
Chairman Board of Trustees

Dr. William H. Wagoner
Chancellor

It is my pleasure, on behalf of the Board of Trustees, to welcome each of you to the University of North Carolina at Wilmington.

Most of you have experienced one, two or three years with us, so you already have a fairly good sense of direction and knowledge of what an excellent education you can achieve at this outstanding University.

For some of you, however, this is your first year in a period of your life that you will never forget. It will be a time for building friendships that will last a lifetime. The next four years will open up vast avenues of knowledge which you can take advantage of to form a basis for a productive and fulfilling life.

Again, welcome to the campus of the University of North Carolina a Wilmington.

Sincerely,

F. P. Fensel

F. P. Fensel
Chairman of the Board of Trustees

It is with a great deal of pleasure that I welcome each of you to The University of North Carolina at Wilmington. You will find that this is a friendly community of scholars, and I believe you will enjoy being a part of it as much as I do.

This campus is one of the fastest growing campuses in the University system, and we are proud of our accomplishments over the years.

The programs offered by the University are designed to serve a broad spectrum of interests in the liberal arts and sciences. The undergraduate instruction and research opportunities are provided in fine arts, humanities, natural and social sciences, teacher education and other professional disciplines. Pre-professional programs in medicine, pharmacy, engineering, forestry, dentistry, agriculture and law are also offered. Strong programs in the fine arts include studio art, drama and applied music.

Programs available through UNC-Wilmington's graduate school include several options in the School of Education, programs in Marine Biology and Geology, a program leading to the degree of Master of Business Administration, and several options in the liberal arts.

We welcome you to "UNC by the Sea" a very special place!

Sincerely,

William H. Wagoner

William H. Wagoner
Chancellor

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CALENDAR OF EVENTS*
1989-1990

Fall Semester, 1989

August 14, Monday	Academic Year Begins
August 20, Sunday	On-campus housing opens
August 21-22, Monday-Tuesday	Orientation and advising
August 23, Wednesday	Registration
August 24, Thursday	Classes begin
August 31, Thursday	Last day to add a class or drop without a grade
September 4, Monday	Labor Day Holiday
September 14, Thursday	Faculty Meeting
October 4, Wednesday	Last day to withdraw with W - undergraduate students
October 11, Wednesday	Fall vacation begins 10:30 p.m.
October 16, Monday	Fall vacation ends 8:00 a.m.
October 26, Thursday	Graduation application deadline, Spring 1990
November 10, Friday	Last day to withdraw with WP - graduate students
November 21, Tuesday	Thanksgiving vacation begins 10:30 p.m.
November 27, Monday	Thanksgiving vacation ends 8:00 a.m.
December 8, Friday	Last day of classes
December 11-16, Monday-Saturday	Final examinations
December 18-19, Monday-Tuesday	Final examinations
December 19, Tuesday	Fall semester ends/on-campus housing closes

Spring Semester, 1990

January 3, Wednesday	On-campus housing opens
January 4, Thursday	Orientation and advising
January 5, Friday	Registration
January 8, Monday	Classes begin
January 12, Friday	Last day to add a class or drop without a grade
January 15, Monday	Martin Luther King Holiday
February 16, Friday	Last day to withdraw with W - undergraduate students
March 2, Friday	Spring vacation begins at 10:30 p.m.
March 12, Monday	Spring vacation ends at 8:00 a.m.
March 16, Friday	Graduation application deadline, Summer 1990
March 27, Tuesday	Last day to withdraw with WP - graduate students
April 12, Thursday	Easter vacation begins at 10:30 p.m.
April 16, Monday	Easter vacation ends 8:00 a.m.
April 19, Thursday	Faculty meeting
April 24, Tuesday	Last day of classes
April 25, Wednesday	Reading Day
April 26-28, Thursday-Saturday	Final examinations
April 30-May 4, Monday-Friday	Final examinations
May 4, Friday	Spring semester ends/on-campus housing closes
May 12, Saturday	Commencement, academic year ends

Summer Session, 1st, 1990

May 17, Thursday	On-campus housing opens
May 18, Friday	Registration
May 21, Monday	Classes begin
May 22, Tuesday	Last day for registration
May 23, Wednesday	Last day to withdraw without a grade
May 30, Wednesday	Last day to withdraw with a W - undergraduate students
June 8, Friday	Last day to withdraw with a WP - graduate students
June 19, Tuesday	Last day of classes
June 20, Wednesday	Final examinations/term ends

Summer Session, 2nd, 1990

June 24, Sunday	On-campus housing opens
June 25, Monday	Registration
June 26, Tuesday	Classes begin
June 27, Wednesday	Last day for registration
June 28, Thursday	Last day to withdraw without a grade
June 29, Friday	Graduation application deadline for Fall 1990
July 4, Wednesday	Independence Day Holiday
July 9, Monday	Last day to withdraw with W - undergraduate students
July 17, Tuesday	Last day to withdraw with WP - graduate students
July 26, Thursday	Last day of classes
July 27, Friday	Final examinations/term ends

*Calendar may be adjusted due to State legislative action

CALENDAR OF EVENTS
1990-91

Fall Semester, 1990

August 13, Monday	Academic Year Begins
August 19, Sunday	On-campus housing opens
August 20-21, Monday-Tuesday	Orientation and advising
August 22, Wednesday	Registration
August 23, Thursday	Classes begin
August 30, Thursday	Last day to add a class or drop without a grade
September 3, Monday	Labor Day Holiday
September 13, Thursday	Faculty meeting
October 3, Wednesday	Last day to withdraw with W - undergraduate students
October 10, Wednesday	Fall vacation begins 10:30 p.m.
October 15, Monday	Fall vacation ends 8:00 a.m.
October 25, Thursday	Graduation application deadline, Spring 1991
November 9, Friday	Last day to withdraw with a WP - graduate students
November 20, Tuesday	Thanksgiving vacation begins 10:30 p.m.
November 26, Monday	Thanksgiving vacation ends 8:00 a.m.
December 7, Friday	Last day of classes
December 8,Saturday	Reading Day
December 10-15, Monday-Saturday	Final examinations
December 17-18, Monday-Tuesday	Final examinations
December 18, Tuesday	Fall Semester ends/on-campus housing closes

Spring Semester, 1991

January 2, Wednesday	On-campus housing opens
January 3, Thursday	Orientation and advising
January 4, Friday	Registration
January 7, Monday	Classes begin
January 11, Friday	Last day to add a class or drop without a grade
January 21, Monday	Martin Luther King Holiday
February 15, Friday	Last day to withdraw with W - undergraduate students
March 1, Friday	Spring vacation begins 10:30 p.m.
March 11, Monday	Spring vacation ends 8:00 a.m.
March 15, Friday	Graduation application deadline, Summer 1991
March 26, Tuesday	Last day to withdraw with WP - graduate students
March 28, Thursday	Easter vacation begins 10:30 p.m.
April 1,Monday	Easter vacation ends 8:00 a.m.
April 4, Thursday	Faculty meeting
April 24, Wednesday	Last day of classes
April 25, Thursday	Reading Day
April 26-27, Friday-Saturday	Final examinations
April 29-May 4, Monday-Saturday	Final examinations
May 4, Saturday	Spring Semester ends/on-campus housing closes
May 11, Saturday	Commencement, Academic Year Ends

Summer Session, 1st, 1991

May 16, Thursday	On-campus housing opens
May 17, Friday	Registration
May 20, Monday	Classes begin
May 21, Tuesday	Last day for registration
May 22, Wednesday	Last day to withdraw without a grade
May 29, Wednesday	Last day to withdraw with W - undergraduate students
June 7, Friday	Last day to withdraw with WP - graduate students
June 18, Tuesday	Last day of classes
June 19, Wednesday	Final Examinations; term ends

Summer Session, 2nd, 1991

June 23, Sunday	On-campus housing opens
June 24, Monday	Registration
June 25, Tuesday	Classes begin
June 26, Wednesday	Last day for registration
June 27, Thursday	Last day to withdraw without a grade
June 28, Friday	Graduation application deadline for Fall 1991
July 4, Thursday	Independence Day Holiday
July 5, Friday	Last day to withdraw with W - undergraduate students
July 16, Tuesday	Last day to withdraw with WP - graduate students
July 25, Thursday	Last day of classes
July 26, Friday	Final examinations; term ends

*Calendar may be adjusted due to State legislative action.

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William R. Calloway, M.P.A. ..... *Director of Personnel Services*
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Diane L. McKinstry, Ph.D. ..... *Assistant Vice Chancellor for Student Affairs-Student Development Services*
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Kathleen Jewell, M.D. ..... *Director of Student Health and Wellness Center*
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Howard R. Lipman, B.S. ..... *Executive Director of Resources Development*
Renee R. Brantley, A.B.J. ..... *Director of Publications*

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Ralph H. Parker, M.Ed. ..... *Director of Minority Affairs*
George E. Bair, Ph.D. ..... *Compliance Officer*

THE UNIVERSITY

THE UNIVERSITY OF NORTH CAROLINA

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Roy Carroll, B.A., M.A., Ph.D. ..... Vice President-Planning
Nathan F. Simms, Jr., B.S., M.S., Ph.D. Vice President-Student Services and Special Programs
L. Felix Joyner, A.B. ..... Vice President-Finance
Jasper D. Memory, B.S., Ph.D. ..... Vice President-Research and Public Service
Wyndham Robertson, A.B. ..... Vice President-Communications
Jay M. Robinson, B.S., M.A., Ed.D. ..... Vice President-Public Affairs
David G. Martin, B.A., LL.B. ..... Secretary of the University
Richard H. Robinson, Jr., A.B., LL.B. ..... Assistant to the President
John W. Dunlop, B.A. ..... Director, The University of North Carolina Center for Public Television

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Asa T. Spaulding, Jr., Vice Chairman
Samuel H. Poole, Secretary

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Walter R. Davis
R. Phillip Haire
Mrs. Julia T. Morton
Asa T. Spaulding, Jr.
David J. Whichard, II
William K. Woltz

Class of 1991

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Wayne A. Corpening
J. Earl Danleley
Charles D. Evans
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James E. Holshouser, Jr.
Dr. Joy J. Johnson
Robert L. Jones
John R. Jordan, Jr.
Mrs. John L. McCain
Samuel H. Poole
W. Travis Porter
J. Aaron Prevost
Louis T. Randolph
Joseph E. Thomas
Gus Tulloss

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Charles Z. Flack, Jr.
John A. Garwood
Reginald F. McCoy
Mrs. Martha F. McNair
D. Samuel Neill
Maceo A. Sloan
Ms. Ruth Dial Woods

Members Emeriti

William A. Dees, Jr.
William A. Johnson

HISTORY OF THE UNIVERSITY

The University of North Carolina is comprised of all the public institutions of higher education in North Carolina that confer degrees at the baccalaureate level or higher. The University was authorized by the State Constitution in 1776, and it was chartered in 1789 by the General Assembly.

The University of North Carolina opened its doors to students at Chapel Hill in 1795. Thereafter, beginning in the latter part of the nineteenth century, the General Assembly of North Carolina has established and supported fifteen other public senior institutions in keeping with Article IX, Section 8, of the Constitution of North Carolina which provides that the General Assembly "shall maintain a public system of high education, comprising the University of North Carolina and such other institutions of higher education as the General Assembly may deem wise."

By 1969, The University of North Carolina included six constituent institutions, governed by a single Board of Trustees. This multi-campus University had its beginnings in legislation enacted in 1931 that defined the University of North Carolina to include The University of North Carolina at Chapel Hill, North Carolina State University at Raleigh, and The University of North Carolina at Greensboro. In the 1960's three additional campuses were added: The University of North Carolina at Charlotte, The University of North Carolina at Asheville, and The University of North Carolina at Wilmington.

Beginning in 1877, the General Assembly of North Carolina established or acquired ten additional separately governed state-supported senior institutions of higher education. They are: Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, North Carolina School of the Arts, Pembroke State University, Western Carolina University and Winston-Salem State University. Then, in 1971, the General Assembly redefined The University of North Carolina, and under the terms of that legislation all sixteen public senior institutions became constituent institutions of The University of North Carolina.

The constitutionally authorized Board of Trustees of the six campus University of North Carolina was designated the Board of Governors and this body is by law The University of North Carolina. The Board of Governors consists of thirty-two members elected by the General Assembly, and it is charged with "the general determination, control, supervision, management, governance of all affairs of the constituent institutions." The chief executive officer of The University is the President.

Each constituent institution of The University has its own faculty and student body. The chief administrative officer of each institution is the chancellor and the chancellors are responsible to the President.

Each constituent institution also has a board of trustees composed of thirteen members: eight elected by the Board of Governors, four appointed by the Governor, and the elected president of the student body ex officio. (The School of the Arts has two additional ex officio trustees.) The principal powers of these institutional boards are exercised under a delegation of authority from the Board of Governors.

BOARD OF TRUSTEES
THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

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THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

The University of North Carolina at Wilmington was founded in 1947 as Wilmington College, a locally supported and governed institution, to provide the youth and adults of New Hanover County and Southeastern North Carolina an opportunity for two years of university parallel study, semiprofessional training and vocational-technical education at moderate expense. From these beginnings and goals and through a series of transformations with ever-widening programs and aspirations, in 1969 it became a constituent institution of The University of North Carolina, whose purpose, resources, and direction it shares.

The University of North Carolina at Wilmington is a community of scholars dedicated to teaching, learning, creating, and extending knowledge through research. Its objectives are to stimulate curiosity, imagination, and creativity; to communicate both general knowledge and the facts and concepts particular to various disciplines and professional programs; to foster clear thinking, rational decision-making, and fluent, accurate communication; and to develop skills appropriate to the various disciplines and professional programs.

The programs offered by the University include four-year programs leading to the Bachelor of Arts and Bachelor of Science degrees within the College of Arts and Sciences, the Cameron School of Business Administration, the School of Education, and the School of Nursing; graduate programs leading to the Master of Education, the Master of Science, the Master of Arts, and the Master of Business Administration degrees; a variety of pre-professional programs; and special programs in a variety of areas, including Marine Science Research, Army ROTC and Continuing Education. The University's recent development has made possible increasingly diverse contributions, some of international significance. Its aim is to continue and to improve its innovative programming and comprehensive approach to meeting the wide-ranging needs of the region, the state, and the larger community.

HISTORY AND BACKGROUND

Education on the college level first came to Wilmington in 1946 when a college center was established under the direction of the North Carolina College Conference and under the administration of the Directorate of Extension of The University of North Carolina at Chapel Hill. The center offered courses on the freshman level to some 250 students during the academic year 1946-47. In 1947 a tax levy was approved by the citizens of New Hanover County, and Wilmington College was brought into existence as a county institution

under the control of the New Hanover County Board of Education, In 1948 Wilmington College was officially accredited by the North Carolina College Conference and became a member of the American Association of Junior Colleges. In 1952 the institution was accredited as a junior college by the Southern Association of Colleges and Schools.

In 1958 New Hanover County voted to place the college under the Community College Act of the State of North Carolina. By virtue of this vote, the college became a part of the state system of higher education, and control passed from the New Hanover County Board of Education to a board of twelve trustees, eight of whom were appointed locally and four of whom were appointed by the governor of the state. At the same time, the requirements for admission and graduation and the general academic standards of the college came under the supervision of the North Carolina Board of Higher Education, and the college began to receive an appropriation from the state for operating expenses in addition to the local tax.

On July 1, 1963, by an act of the General Assembly of North Carolina, Wilmington College became a senior college with a four-year curriculum, authorized to offer the bachelor's degree.

By vote of the Board of Trustees of The University of North Carolina in late 1968, with subsequent approval by the North Carolina Board of Higher Education, and by an act of the General Assembly of North Carolina in 1969, Wilmington College became, on July 1, 1969, The University of North Carolina at Wilmington. It, and the institution in Asheville previously designated as Asheville-Biltmore College, became the fifth and sixth campuses of The University of North Carolina.

On October 30, 1971, the General Assembly in special session merged, without changing their names, the remaining ten state-supported senior institutions into the university. Thus, the University of North Carolina now comprises 16 institutions.

On August 22, 1977, The Board of Governors of The University of North Carolina authorized The University of North Carolina at Wilmington to offer its first graduate programs at the master's level.

ACADEMIC STANDING

The University of North Carolina at Wilmington is accredited by the Southern Association of Colleges and Schools and the North Carolina Association of Colleges and Universities. The School of Education is accredited by the National Council for Accreditation of Teacher Education and the School of Nursing is accredited by the National League for Nursing. The University also holds membership in the American Assembly of Collegiate Schools of Business, the American Council on Education, the American Placement Council, and the Council for Advancement and Support of Education, and is on the list of schools approved by the American Chemical Society.

THE FACULTY

The University seeks to attract and maintain a faculty of outstanding individuals who are capable of contributing to the enrichment of its diverse and comprehensive instructional and research programs. Its faculty members come from all geographic sections of the United States and several foreign countries, bringing to this campus a rich variety of educational experiences, training and scholarship. Of the more than 366 instructional and research faculty, more than 69 percent hold doctoral degrees.

In addition to its primary responsibilities of teaching, the faculty actively engages in research and creative pursuits. Research interests are widespread in the various disciplines within the humanities, natural, physical, behavioral, and social sciences, and the profes-

sions. One of the major areas of interest is the marine sciences in which extensive research is conducted in such fields as marine biology, chemical and physical oceanography, and coastal environments. Many of these research activities culminate in the publication of books and scholarly articles and presentation of papers at professional associations, bringing acclaim to the University as well as the faculty. Certain other faculty members are widely recognized for their outstanding achievements in the literary, visual, and performing arts.

As an outgrowth of their professional training and/or University affiliation, UNCW faculty members serve the community at large in various ways. Many participate in artistic, business, educational, governmental, religious and other professional and humanitarian activities. Inasmuch as the University is dedicated to serving its total constituency, faculty members are encouraged to serve in an educational, advisory or informational capacity to enhance the welfare of the community at large.

STATEMENT ON DIVERSITY IN THE UNIVERSITY COMMUNITY

In an effort to address the needs of the total University community, the Chancellor has endorsed the following statement of principle proposed by the Human Relations Advisory Committee:

As an institution of higher learning, the University of North Carolina at Wilmington represents a rich diversity of human beings among its faculty, staff, and students and is committed to maintaining a campus environment that values that diversity.

Accordingly, the University supports policies, curricula and co-curricular activities that encourage understanding of an appreciation for all members of its community and will not tolerate any harrasment of or disrespect for persons because of age, sex, color, race, religion, creed, national origin, sexual preference, political belief or affiliation, handicap, veteran status, marital status, or membership in any organization.

For more information concerning the ways that our multicultural learning community may be nurtured and protected, contact the Human Relations Committee through the offices of the Chancellor or the Dean of Students.

BOARD OF TRUSTEES' TEACHING EXCELLENCE AWARD

The Board of Trustees of the University of North Carolina at Wilmington, in recognition of this institution's commitment to teaching excellence, has established the Board of Trustees' Teaching Excellence Award. Recipients of the award manifest excellence as a way of life and stand out among the faculty as persons who have made and continue to make a significant contribution to higher education through their dedication and service to students. The award carries with it both an honor and a responsibility: it specifies a member of the faculty as a person of excellence and it calls upon the person so honored to share that excellence with colleagues and students.

THE FOUNDATION CHAIR

The Foundation of the University of North Carolina at Wilmington is a charitable, non-profit corporation established for the sole purpose of supporting the University. Through private donations it supports a faculty Chair, designated to assist the University in its long-range efforts concerning faculty development and recruitment. The Foundation Chair, which is currently allocated to the various academic disciplines on a rotating basis, enables the University to bring to this campus renowned scholars and performing artists. In filling the Chair a special effort is made to select individuals whose contributions will benefit not only the University, but also the community at large.

NOTE: For faculty directory see page 308.

THE CAMPUS

The University of North Carolina at Wilmington is located in the southeastern part of the state of a 650-acre tract on State Highway 123 (College Road) midway between the Cape Fear River and the Atlantic Ocean. The city of Wilmington is situated on the east bank of the Cape Fear River about 15 miles from Carolina Beach and 10 miles from Wrightsville Beach. The standare metropolitan area, of which Wilmington is a part, now has a population in excess of 97,400. Serveral main highways lead into the city, and comercial air service provides easy access to other metropolitan areas north, south, and west.

Ocean breezes and the nearness of the Gulf Stream give Wilmington a delightful year-round climate, and the area's proximity to the ocean provides unlimited recreational opportunities.

The spacious well-landscaped campus was first occupied by the University in 1961. The number of buildings has increased from three in 1961. The number of buildings has increased from three in 1961 to forty-three today. There are several athletic fields and ample space for parking.

BUILDINGS

The buildings on the campus are of modified Georgian architecture. All academic buildings, as well as the cafeteria and residence halls, are completely air-conditioned.

Edwin A. Alderman Hall, which houses administrative offices, is named in honor of a native Wilmingtonian who served as president of The University of North Carolina, The University of Virginia and Tulane University.

Hoggard Hall, an academic building named in honor of Dr. John T. Hoggard, second president of Wilmington College, contains classrooms, the School of Nursing, laboratories, the computing center, special programs, and faculty and staff offices.

Kenan Hall, named in honor of the late Mrs. Sarah Graham Kenan of Wilmington, is occupied by the Creative Arts Department. It contains classrooms, faculty offices, art and music studios, the music library, and electronic music studio, dramatic workshops and the S.R.O. Theatre. It also contains an auditorium with seating capacity of approximately 100.

Will S. DeLoach Hall houses the department of Chemistry and Physics. It is equipped with classrooms, faculty and staff offices, teaching auditoriums, and modern, well-equipped laboratories for the physical sciences.

Friday Hall, named in honor of the UNC President Emertitus William C. Friday and his wife Ida, was completed in 1974. It houses the departments of Biological Sciences and Earth Sciences and contains classrooms and laboratories.

Arnold Kimsey King Hall houses the School of Education and contains an auditorium with a seating capacity of 191, classrooms, faculty offices, and a curriculum laboratory.

Isaac Bear Hall, completed in 1972, contains classrooms, the Department of Mathematical Sciences, and the Graduate School.

Morton Hall, named for Margaret Shannon Morton, was completed in October 1978 and houses the departments of English, History, and Modern Languages. The building contains classrooms, seminar rooms, and Bryan Auditorium which seats 200.

The Social and Behavioral Sciences Building was completed in 1980. It houses the departments of Psychology, Philosophy and Religion, Political Science, and Sociology/ Anthropology, as well as some offices of the campus computing center.

Cameron Hall, occupied in 1988, houses the Cameron School of Business Administration.

The Sarah Graham Kenan Auditorium, a gift for the Sarah Graham Kenan Foundation, has a seating capacity of 1,000 persons. The auditorium is also equipped for use as a theatre and contains seminar rooms for the Department of Creative Arts.

Hanover Hall and Trask Coliseum, the physical education complex, provide modern facilities for the athletic activities of all students, including a large playing floor with rollaway bleachers, a second athletic activity floor, offices, locker rooms and showers, and special gymnastic equipment.

The Raiford G. Trask Health and Physical Education Building provides the campus with a 6,000 seat coliseum as well as an olympic size swimming pool and a separate diving tank. Construction was completed in the fall of 1977.

The University Union is the "living room" of the University community. It houses a wide variety of services, student and administrative offices, while providing space for campus activities and meetings.

Hinton James Hall, named for a New Hanover County resident who was the first student to enroll at The University of North Carolina, houses the Financial Aid Office, Registrar Services, Undergraduate Admission, Cashier, and the office of the Dean of the College of Arts and Sciences.

The John J. Burney, Jr. University Student Support Center opened in 1985. Centrally located adjacent to the University Union, it houses the University Bookstore, Student Health Services, and Student Development Center.

The University Cafeteria, opened in 1971, provides space for food services for students and faculty and contains the most modern food service equipment.

The Edmond R. Galloway Residence Hall, opened in 1971, provides housing for 400 students. The Belk Residence Hall, opened in June 1976, accommodates 200 students. The 200-student residence hall, Addision Hewlett, Jr., Hall, opened in 1978. Another residence hall for 220 students, Frederick B. Graham Hall, was ocupied in the fall of 1979. In 1981, the 400-student apartment complex was completed and occupied. The B.D. Schwartz Residence Hall houses 160 students and opened in the fall of 1985.

WILLIAM MADISON RANDALL LIBRARY

The William Madison Randall Library, recently expanded and completely renovated, is named for the President Emeritus of Wilmington College. The new facility provides seating for approximately 950 users and will accommodate a collection of 475,000 volumes in addition to separate collections of government publications (federal and state), curriculum materials, microformat materials, and audiovisual materials and equipment. The Library now contains over 315,000 hardbound volumes in open stack areas. Rare and unique items are housed in the Helen Hagan Rare Book Room.

Some 4,850 serial titles are currently on subscription, and extensive journal backfiles are maintained in bound volumes and in microformat. Copy machines are available for both hardbound and microformat publications.

The Randall Library is a partial depository for United States government publications, and the collection now consists of over 300,000 items. The Library is also a full depository for North Carolina documents. These materials are available to all of the Library's users.

A growing audiovisual collection containing materials in several formats is conveniently located on the first floor. A 73-seat auditorium is equipped for various types of audiovisual use.

The Randall Library is open over 98 hours per week during the regular academic sessions. Several reference librarians are available to provide assistance and guidance to students and faculty who need their services.

The Library has recently implemented a minicomputer-based online catalog and circulation system, which allows easy, efficient access to most of the Library's various collections.

HERBERT BLUETHENTHAL MEMORIAL WILDFLOWER PRESERVE

The Herbert Bluethenthal Memorial Wildflower Preserve is a tract of approximately 10 acres set aside on the campus by the University's Board of Trustees in response to a donation by Mrs. Herbert Bluethenthal of Wilmington. The Preserve includes a wide variety of plant communities, marked trails to follow, and labeled plants to observe. It is dedicated to the preservation of the rich and varied flora of Southeastern North Carolina and has been designed to provide a place of contentment and pleasure for those who enjoy and appreciate our native plants.

COMPUTING SERVICES

General academic computing support for student course-related instruction and research is provided through both terminal access to a central facility Digital Equipment VAX 11/785 minicomputer and numerous microcomputers located throughout the campus. The central computer facility is supplemented by several supermicrocomputers and a SEQUENT Balance B8 parallel-processor system running the UNIX operating system in the Department of Mathematical Sciences; a complex of microcomputers in the School of Business Administration; and specialized use microcomputers in the areas of English, Social Sciences, Biology and Nursing.

The central VAX 11/785 minicomputer operates under the VAX/VMS version 5.0 operating system and supports such general use compilers and processors as COBOL, BASIC, PASCAL, PL/1, FORTRAN, a spreadsheet, wordprocessor, and statistical packages including SAS and SPSS-X and IMSL (International Mathematical Subroutine Library). Terminal emulation software is available for microcomputer interface to the VAX system.

A campus-wide network provides access to the on-campus systems, as appropriate, and the Randall Library on-line public access catalog system. A variety of special equipment such as laser printers and plotters are available for general use.

The University is connected to BITNET, a communications network of over 2,000 institutional and departmental computers at 375 institutions of higher education and research centers in the U.S.A., Canada, Europe and Asia. Access to BITNET is restricted and to be used only for authorized University-related activities.

The intent is to provide all students maximum access to state-of-the-art computing. Students must establish a user account to utilize the central VAX facility system and must abide by the rules and policies for use of the facilities including microcomputers. A user guide to UNC's computing facilities is available in the campus bookstore.

ADMISSIONS

ADMISSIONS

The University of North Carolina at Wilmington seeks to admit students with the intellectual ability to perform in the collegiate community. Students must have the motivation and the determination to avail themselves of the learning experiences that will be beneficial to them if they are to attain both academic and personal enrichment. As a state-supported institution, the University is aware of its obligation to provide an educational opportunity to all qualified applicants who will benefit from the program of study offered on the Wilmington campus.

Applicants may apply to enter the University at the beginning of the fall or spring semester and at the beginning of each summer term. Applications for fall semester must be filed by May 1; applications for spring semester must be filed by November 1. Students desiring to enroll in summer school must make application prior to the summer session registration date. The academic qualifications of each applicant are carefully reviewed by admissions personnel in a conscientious effort to admit students who have the potential for further academic achievement and growth.

The University does honor the College Board Application Fee Waiver form if properly signed.

Over enrollment or state budgetary constraints may require the restriction of admissions during a given year. This may require the adjustment of minimum requirements or the establishment of earlier application deadlines. An immunization record for each newly admitted UNCW student is required by law to be on file at UNCW prior to enrollment.

APPLICATION DATES

A. For Freshman, Transfer, and Unclassified Applicants for Fall, 1990

1. Application complete by December 1; Decision mailed by February 15.
2. Application complete by February 15; Decision mailed by April 15.
3. Applications received/or completed after February 15, and up to May 1, will be reviewed after April 15, on a "space available" basis. Decisions on these applications, only, will be mailed on a rolling basis.
4. **Non-Refundable $25.00 Tuition Deposit due May 1 from all admittees intending to enroll at UNCW in the Fall, 1990.**

B. For Re-Enrolling Students for Fall, 1990

1. Apply by May 1; Decision by June 30.
2. No Tuition Deposit Required.

C. For All Spring (January) Semester Applicants, 1990

1. Apply by November 1; Decision by December 15.
2. Tuition Deposit due December 30.

D. For All Summer Session(s) Applicants

Summer Session I	Apply by May 15; Rolling Decision.
Summer Session II	Apply by June 15; Rolling Decision.
No tuition deposit	Full payment due at registration.

E. For Permission (Visitor) Students for Summer I and Summer II, 1990

Summer Session I	Apply Prior to May 15.
Summer Session II	Apply Prior to June 15

No Tuition Deposit required from Permission/Visitor Students.

ADMISSIONS-FRESHMEN

The requirements for admission to The University of North Carolina at Wilmington prior to Fall of 1990 are:

(1) Graduation from an approved or accredited high school, or a GED certificate**.

(2) A satisfactory score on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT).

(3) An overall "C" average on all work attempted in grades 9-12.

(4) The following specific high school units:
4 units in English
*2 units in one foreign language
2 units in Mathematics (Algebra I and Geometry or Algebra II)
2 units in Social Science (including 1 unit in U.S. History)
2 units in Science (1 in Biology; 1 in a Physical Science)

*Students who meet all minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and/or 102 before they may graduate with the baccalaureate degree.
**GED candidates must have been out of school two full years since their class graduated.

Admissions requirements will change, effective Fall 1990 semester. These new requirements are outlined at the end of this section.

Application Procedure for Freshmen

Applicants are required to comply with the following:

1. Submit a completed application form by the deadline date. A $15.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Have the secondary school officials submit an official transcript of secondary school work or GED. The transcript must be sent directly to the Office of Admissions, The University of North Carolina at Wilmington, 601 S. College Road, Wilmington, North Carolina 28403-3297.

3. Take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the ACT of the American College Testing Program. Because of deadlines for filing application to take the tests, arrangements must be made well in advance of the testing date so that the application is received by the testing company in time. Applicants are accepted to UNCW on the basis of their junior or senior SAT or ACT scores. For information about the SAT, contact the secondary school guidance counselor or write or call College Board ATP, P. O. Box 592, Princeton, New Jersey 08540, (609) 771-7600. Students who live in the Western, Southwestern or Pacific Coast states should write or call College Board ATP, P. O. Box 1025, Berkeley, California 94701, (415) 849-0950. For information about the American College Testing Program, write The College Testing Program, Program Services Department, P.O. Box 168, Iowa City, Iowa 52243.

It is important that the high school transcript, or GED, and test scores reach the University by the application deadline date so that all matters relating to the application may be complete before the opening of the semester in which the student expects to enroll.

ADMISSIONS-TRANSFER STUDENTS

Students wishing to transfer to The University of North Carolina at Wilmington from another institution must meet the following requirements for admission: (1) must be eligible to return to the institution last attended and (2) must have attained at least a C" average (2.0 on 4.0 system) based on all courses attempted and on all transferable courses at all institutions attended. Transfer students with less than 24 semester hours (or 36 quarter hours) of transferable credit must also meet the freshman entrance requirements.

Students seeking admission by transfer of credits are required to have all transcripts of previous college or university work forwarded to the Office of Admissions by the Registrar of each institution they have attended. Even though no transfer of credit may be involved, all previous college or university work must be certified by transcripts or records of attendance. An official high school transcript or GED must also be submitted. Transfer courses will not be accepted from non-accredited schools, nor from business, trade, vocational or technical schools, except by previous contractual agreement with UNCW.

Application Procedure for Transfer Students

Students wishing to transfer are required to comply with the following procedures:

1. Submit a completed application form by the application deadline date. A $15.00 (NON-REFUNDABLE) application fee must accompany the application.
2. Submit a completed University questionnaire. This questionnaire is included in the transfer admissions packet.
3. Have an official transcript from each college or university attended, including summer school, submitted. It is the applicant's responsibility to request that the Registrar of each institution attended send an official transcript directly to the Office of Admissions by the application deadline date.
4. Have an official high school transcript or GED, including test scores, sent to the Office of Admissions by the application deadline date.

Official credit evaluation of transcripts will be done after admission when tuition deposit or confirmation card is received from student.

ADMISSIONS-NURSING, BUSINESS ADMINISTRATION, EDUCATION

Admission to the Bachelor of Science degree programs in Nursing or Business Administration, and the Bachelor of Arts degree program in Education requires application to and acceptance by the School of Nursing, School of Business, or School of Education in addition to acceptance by the University.

ADMISSIONS-FORMER STUDENT (Re-enrolling)

Former UNCW students who wish to return to the University must apply to the Office of Admissions for readmission prior to May 1 for the fall semester or November 1 for the spring semester. Those who have attended another college or university since their last enrollment at UNCW are required to submit official transcripts from such institutions before they can be considered for readmission. **A "C" average (2.0 out of 4.0 system) must have been attained on all work from other institutions attended.**

The Three-year Rule

Any UNCW degree student with less than a 2.0 average who has been out of school for at least three years and has not attended any other institution since leaving UNCW is eligible to re-enter under the "three-year rule." Any former student of another accredited college or university who has not attended school for at least three years and has less than a 2.0 average is also eligible to enter UNCW under the "three-year rule."

The student who elects to have the three-year rule applied will have neither a quality point deficit to overcome, nor hours of credit for those courses in which "D" grades were attained. Only courses in which a grade of "C" or better was earned will be counted toward graduation. Nevertheless, this option will not alter the student's original academic record.

The quality point average will begin at the time studies are resumed, and the student will be required to maintain a "C" average on a semester basis to be eligible to continue. Degree requirements will be those in effect at the time the student reenrolls.

The three-year rule option must be exercised at the time the student is admitted/re-admitted to the University. Once exercised, it may not later be reversed.

ADMISSIONS-UNCLASSIFIED STUDENTS

Individuals may enroll in the University as unclassified students by meeting the appropriate requirements for admission as stated below:

1. A transfer student who has not been enrolled in an institution of higher education for at least one year and who has not been academically suspended within the last three years may apply for admission as an unclassified student.
2. A high school graduate who has not attended an institution of higher education and has been graduated at least two years may apply for admission as an unclassified student. GED candidates must have been out of school two full years since their class graduated.
3. Official college transcripts (transfers) and high school transcript or GED (transfers and freshmen) must be sent to the Office of Admissions by the application deadline date.

Students who enroll as unclassified students may take any undergraduate course as long as the prerequisite listed in the course description is honored. Unclassified students are limited to two courses per semester or summer term. An unclassified student may apply for admission as a degree candidate upon completing a minimum of 15 semester hours with a "C" average on all work attempted. The student must complete English 101-102 and three semester hours of basic mathematics with a "C" or better before being considered for admission as a degree candidate. An unclassified transfer student who has completed English 101-102 and three semester hours of basic mathematics with a "C" or better will be considered as having met this requirement. However, requirements for transfer students to become degree candidates will vary depending on the previous college performance.

To avoid delay in having applications considered for change-over admission to degree candidates, unclassified students are advised to apply prior to the application deadline established for the semester. The maximum number of hours allowed students in the unclassified category is 30 semester hours. When this limit is reached, the students must be eligible to apply for admission consideration as degree candidates or terminate their enrollment at the University.

Unclassified students are subject to the academic regulations of the University as applicable. Unclassified students are not eligible for some federally funded financial aid programs.

ADMISSIONS-SPECIAL STUDENTS

Any individual who already possesses a degree from a four-year accredited college and wishes to enroll for an undergraduate course at UNCW or any individual with a degree who wishes to work toward a second baccalaureate degree must apply to the Office of Admissions before the application deadline date. An official transcript from the degree-granting institution must be sent from that institution to the Office of Admissions by the deadline date. Second degree candidates must have transcripts from all colleges attended submitted by application deadline date, and must have high school transcripts or GED sent directly from the high school.

ADMISSIONS-PERMISSION/VISITING STUDENTS

During the summer sessions, students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. Applicants from other colleges or universities must obtain prior written approval from their dean to take courses at UNCW. The University assumes no responsibility in determining a student's course selection when such credits are to be transferred elsewhere. Summer visitor applications and schedules are available by February of each year from the Office of Academic Affairs or the Admission Office. Enrollment by permission from another institution in no way obligates the University to continue one's enrollment at UNCW after the expiration of the permission period. A student may not continue to attend as a permission/visitor student beyond two consecutive summer sessions. To apply for fall or spring semester visitor status, transfer requirements must be met.

ADMISSIONS-SPECIAL HIGH SCHOOL STUDENTS

Selected high school seniors who wish to pursue an academic program on the collegiate level while attending high school may enroll at UNCW if they meet the qualifications for participation in this program. Because of distance, this program is available primarily to students in the Wilmington area. Special applications for admission are available in the office of the high school counselor. Students may enter this program at the beginning of the fall, spring or summer terms. Application deadline dates must be honored.

ADMISSIONS-INTERNATIONAL STUDENTS

The University of North Carolina at Wilmington welcomes interest and inquiry from international students. In addition to meeting regular freshman or transfer academic admission requirements, international students must present evidence of their ability to speak, read, and write the English language and to meet fully the financial obligations associated with their study at the University. Students from foreign countries must present the results of the TOEFL examination (Test of English as a Foreign Language) as a part of their application for admission. A financial responsibility statement and proof of accident and hospital insurance must be submitted. All materials for admission consideration must be in the Office of Admissions as least three (3) months prior to the date of registration for the entering semester or term. It is recommended that international students plan to begin their studies in a fall semester.

ADMISSIONS-SENIOR CITIZENS

Residents of North Carolina age 65 or older who meet applicable admission requirements may enroll tuition free on a space available basis. The availability of class space cannot be determined until after registration.

ADMISSIONS-AUDIT STUDENTS

Students who wish to take courses without receiving credit should apply to the Office of the Registrar immediately after the semester registration date. Audit students are admitted on a "space-available" basis.

ADMISSIONS-GRADUATE STUDENTS

All inquiries concerning admission to graduate programs should be directed to the Graduate School. Admissions requirements are stated in the Graduate Studies section.

NONDISCRIMINATION POLICY

UNCW is dedicated to equality of opportunity within its community. Accordingly, UNCW does not practice nor condone discrimination in any form against students, employees, or

applicants on the grounds of race, color, national origin, religion, sex, age, handicap or veteran status. UNCW commits itself to positive action to secure equal opportunity regardless of those characteristics. For additional information, contact the Federal Compliance Officer.

SAFETY AND HEALTH PROGRAM

UNCW's safety program complies with the State Occupational Safety and Health Act of 1973.

Any student who supplies false or misleading information or who conceals pertinent facts in order to enroll in The University of North Carolina at Wilmington will be subject to immediate dismissal from the University.

FRESHMAN ADMISSION REQUIREMENTS

for

The University of North Carolina at Wilmington

Fall 1990 Semester

The requirements for Freshman admission to The University of North Carolina at Wilmington for the Fall 1990 semester are:

(1) A diploma from an approved or accredited high school or a GED Certificate.**
(2) A satisfactory score on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT)
(3) An overall "C" average on all work attempted in grades 9-12.
(4) The following specific high school units:

Four (4) course units in English, emphasizing grammar, composition, and literature;

Three (3) course units in mathematics, including:
-algebra I
-algebra II, and
-geometry, or a high level mathematics course for which algebra II is a prerequisite

Two (2) course units in social studies, including one (1) unit in U.S. History

Three (3) course units in science, including:
-at least one (1) unit in a life or biological science (for example, biology)
-at least one (1) unit in a physical science (for example, physical science, chemistry, physics)
-at least one (1) laboratory course.

In addition, it is recommended that prospective students complete at least two (2) course units in one foreign language*, and take one (1) foreign language course unit and one (1) mathematics course unit in the twelfth grade.

*Students who meet all the minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and/or 102 before they are graduated with the baccalaureate degree from UNCW.

**GED candidates must have been out of school two full years since their class graduated.

EXPENSES

EXPENSES

The Board of Governors of the University reserves the right to change the charges for tuition fees and the room and board rate at any time without prior notice.

TUITION AND FEES (In effect at time of publication)

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

Full Time Charges Per Semester (12 or more semester hours):

	In-State Students	Out-of-State Students*
Tuition	$216.00	$2,135.00
Mandatory Fees	260.50	260.50
Total	$476.50	$2,395.50

Other fees:

Application Fee (to accompany application, nonrefundable	$15.00
Late Registration Fee (payable after scheduled dates)	10.00
Transcript Fee (after the first)	1.00
Graduation Fee	27.00

Certain courses have additional fees which increase the semester charges shown above. These fee courses are indicated in the course schedule for each semester.

Undergraduate students registering for 12 or more semester hours will be charged at the full-time rate as shown above. Students scheduling fewer than 12 semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students*
1-5	$102.50	$582.50
6-8	329.00	1,289.00
9-11	422.50	1,861.50

*See information on residency at the end of this section

The privileges of students taking fewer than six hours per semester will be restricted to class attendance and use of the library; however, by paying a Special Use Fee of $18.00 per semester, these students will be entitled to use all physical education facilities which are available to full-time students.

No degree, diploma, transcript of credit, or grades will be furnished a student until all financial obligations to the University, other than student loans, have been paid. All previously incurred expenses and accounts at the University must be paid in full prior to preregistration or registration for a new term.

ON-CAMPUS LIVING

Two meal plans are available for residence hall students. The rates per semester are as follows:

Room and Board:	15 meals	$1,353.00
Room and Board:	21 meals	$1,378.00

Three meal plans are available for apartment students and students living in Residence Hall 89 suites. The rates per semester are as follows:

Apartment and Board:	10 meals	$1,453.00
Residence Hall and Board:	10 meals	$1,053.00
Apartment and Board:	15 meals	$1,478.00
Residence Hall and Board:	15 meals	$1,528.00
Apartment and Board:	21 meals	$1,503.00
Residence Hall and Board:	21 meals	$1,553.00

The University reserves the right to change the on-campus living rate at any time without prior notice.

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

An advance room reservation deposit of $100.00, to be applied to the room and board account, must be remitted by each applicant, along with the complete application for room and board.

Those interested in obtaining information should contact:
Housing Office
The University of North Carolina at Wilmington
601 South College Road
Wilmington, North Carolina 28403-3297

SUMMER SESSION

Summer session tuition, fees, refund policy, and room and board rates will be announced in the Summer Session Bulletin.

REFUNDS-TUITION

A student who officially withdraws from the University on or before the last day of the registration (Drop/Add) period will receive a refund of the amount paid.

Students withdrawing from the University after the Drop/Add period will be charged 10% of all semester charges for each week of classes that have been held that semester. This weekly charge begins with the first day of scheduled classes regardless of the actual date of enrollment.

No refunds will be made for withdrawals after the end of the ninth week of scheduled classes.

This refund policy applies to complete withdrawals from UNCW. If you simply reduce your course load after the Drop/Add period, you will receive NO refund or reduction of fees whatsoever.

REFUNDS-FINANCIAL AID

Students who receive financial aid are not given refunds on financial aid received when charges are prorated due to withdrawal.

REFUNDS-HOUSING

Housing arrangements are effective for the full academic year. Agreements made subsequent to the beginning of the fall semester remain in effect until the close of the spring semester. Housing deposit and charges will not be refunded except as provided for below:

1. New Students (Incoming Freshmen and Transfers) - If a new student, after remitting the deposit and being accepted to on-campus housing, decides not to live on campus and gives notice of this decision in writing by May 15, 1989 in the case of application for the fall semester, or at least one month prior to the semester in case of the application for spring semester, the deposit shall be refunded, less a $25.00 administrative charge. Requests for refund received after May 15, 1989 will be denied and the $100.00 deposit forfeited. This condition also applies to students remitting the deposit and being accepted to on-campus housing after May 15, 1989.

2. Returning Students (students currently or previously enrolled at UNCW) - The $100.00 housing deposit is non- refundable to returning students after being accepted to on-campus housing. (Exceptions being marriage, transferring to another institution or withdrawal from UNCW - less $25.00 administrative fee). Notification must be received in the Housing Office, in writing, by May 15, 1989.

3. Room rent for either semester will not be refunded once a student officially moves into a residence hall/apartment.

4. A pro rata refund of dining charges will be made to students who officially withdraw from the University.

RESIDENCE STATUS FOR TUITION PURPOSES

The basis for determining the appropriate tuition charge rests upon whether a student is a resident or a nonresident for tuition purposes. Each student must make a statement as to the length of his or her residence in North Carolina, with assessment by the institution of that statement to be conditioned by the following:

Residence. To qualify as a resident for tuition purposes, a person must become a legal resident and remain a legal resident for at least 12 months immediately prior to classification. Thus, there is a distinction between legal residence and residence for tuition purposes. Furthermore, twelve months legal residence means more than simple abode in North Carolina. In particular it means maintaining a domicile (permanent home of indefinite duration) as opposed to maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education. The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification, who must show his or her entitlement by the preponderance (the greater part) of the residentiary information.

Initiative. Being classified a resident for tuition purposes is contingent on the student's seeking such status and providing all information that the institution may require in making the determination.

Parent's Domicile. If an individual, irrespective of age, has living parent(s) or court-appointed guardian of the person, the domicile of such parent(s) or guardian is, prima facie, the domicile of the individual; but this prima facie evidence of the individual's domicile may or may not be sustained by other information. Further, nondomiciliary status of parents is not deemed prima facie evidence of the applicant child's status if the applicant has lived (though not necessarily legally resided) in North Carolina for the five years preceding enrollment or re-registration.

Effect of Marriage. Marriage alone does not prevent a person from becoming or continuing to be a resident for tuition purposes, nor does marriage in any circumstances insure that a person will become or continue to be a resident for tuition purposes. Marriage and the legal residence of one's spouse are, however, relevant information in determining residentiary intent. Furthermore, if both husband and his wife are legal residents of North Carolina and if one of them has been a legal resident longer than the other, then the longer duration may be claimed by either spouse in meeting the twelve-month requirement for in-state tuition status.

Military Personnel. A North Carolinian who serves outside the State in the armed forces does not lose North Carolina domicile simply by reason of such service. And students from the military may prove retention or establishment of residence by reference, as in other cases, to residentiary acts accompanied by residentiary intent.

Grace Period. If a person (1) has been a bona fide legal resident, (2) has consequently been classified a resident for tuition purposes, and (3) has subsequently lost North Carolina legal residence while enrolled at a public institution of higher education, that person may continue to enjoy the in-state tuition rate for a grace period of twelve months measured from the date on which North Carolina legal residence was lost. If the twelve months end during an academic term for which the person is enrolled at a State institution of higher education, the grace period extends, in addition, to the end of that term. The fact of marriage to one who continues domicile outside North Carolina does not by itself cause loss of legal residence, marking the beginning of the grace period.

Minors. Minors (persons under 18 years of age) usually have the domicile of their parents, but certain special cases are recognized by the residence classification statute in determining residence for tuition purposes.

(a) If a minor's parents live apart, the minor's domicile is deemed to be North Carolina for the time period(s) that either parent, as a North Carolina legal resident, may claim and does claim the minor as a tax dependent, even if other law or judicial act assigns the minor's domicile outside North Carolina. A minor thus deemed to be a legal resident will not, upon achieving majority before enrolling at an institution of higher education, lose North Carolina legal residence if that person (1) upon becoming an adult acts, to the extent that the person's degree of actual emancipation permits, in a manner consistent with bona fide legal residence in North Carolina and (2) begins enrollment at an institution of higher education not later than the fall academic term following completion of education prerequisite to admission at such institution.

(b) If a minor has lived for five or more consecutive years with relatives (other than parents) who are domiciled in North Carolina and if the relatives have functioned during this time as if they were personal guardians, the minor will be deemed a resident for tuition purposes for an enrolled term commencing immediately after at least five years in which these circumstances have existed. If under this consideration a minor is deemed to be a resident for tuition purposes immediately prior to his or her eighteenth birthday, that person on achieving majority will be deemed a legal resident of North Carolina of at least 12 months duration. This provision acts to confer in-state tuition status even in the fact of other provisions of law to the contrary; however, a person deemed a resident of 12 months duration pursuant to this provision continues to be a legal resident of the State only so long as he or she does not abandon North Carolina domicile.

Lost but Regained Domicile. If a student ceases enrollment at or graduates from an institution of higher education while classified a resident for tuition purposes and then both abandons and reacquires North Carolina domicile within a 12-month period, that person, if he or she continues to maintain the required domicile into re-enrollment at an institution of higher education, may re-enroll at the in-state tuition rate without having to meet the usual

12-month durational requirement. However, any one person may receive the benefit of this provision only once.

Change of Status. A student admitted to initial enrollment in an institution (or permitted to re-enroll following an absence from the institutional program which involved a formal withdrawal from enrollment) must be classified by the admitting institution either as a resident or as a nonresident for tuition purposes prior to actual enrollment. A residence status classification once assigned (and finalized pursuant to any appeal properly taken) may be changed thereafter (with corresponding change in billing rates) only at intervals corresponding with the established primary divisions of the academic year.

Transfer Students. When a student transfers from one North Carolina public institution of higher education to another, he or she is treated as a new student by the institution to which he or she is transferring and must be assigned an initial residence status classification for tuition purposes.

The initial classification of undergraduate students as in-state or out-of-state residents for tuition purposes is made by the Admissions Office. Appeals for in-state status may be made to the campus appeals body, Out-of-State Tuition Appeals Committee. University regulations governing residential classification of students are set forth in detail in "A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." Each enrolled student is responsible for knowing the contents of this manual. Copies of the manual are available for inspection upon request in the Admissions Office and in the Randall Library.

FINANCIAL AID

FINANCIAL AID

The UNCW Financial Aid Office administers a program of financial assistance which seeks to meet the needs of all enrolled students. While the program provides for the recognition of talent and outstanding student achievement, its primary objective is to assist students with demonstrated need. In assisting students, the office analyzes and validates the financial need of the applicants and their families through the use of financial statements, related documents, and the interview process. Utilizing this information, awards are constructed to enable a student to bridge the gap between the student and family's resources and the cost of attendance. This assistance may be in the form of scholarships, grants, loans, work study jobs, or a combination of any of these programs.

To apply for financial aid a student must complete the College Scholarship Service Financial Aid Form and submit other documentation as may be requested by the Financial Aid Office. Detailed information on programs, policies, and procedures are printed in "Your Guide to Financial Aid" which may be obtained from the Financial Aid Office. Questions concerning the financial aid program at UNCW should be directed to the Financial Aid Office, The University of North Carolina at Wilmington, 601 S. College Rd., Wilmington, N.C. 28403-3297, (919) 395-3177.

MINORITY PRESENCE GRANT PROGRAM

Under the Board of Governors general Minority Presence Grant Program, black students may be eligible for special financial assistance if they are residents of North Carolina, enrolled for at least three hours of degree-credit course work, and demonstrate financial need.

AMERICAN INDIAN STUDENT LEGISLATIVE GRANT

The General Assembly of North Carolina has provided funds for a number of grants to needy resident North Carolina Indian students. Eligibility is limited to degree students who maintain cultural identification as an American Indian through membership in an Indian tribe recognized by the State of North Carolina or by the federal government or through other tribal affiliation.

GRANTS

Pell Grants provide federal grants for students who show need for assistance in attending college. This grant is intended to cover the period required to complete the first undergraduate baccalaureate degree; however, students are limited to five full years of entitlement under this grant program. Students must be enrolled for at least six hours and must be making satisfactory progress in their academic program. In addition, a student must be a U.S. citizen or in the United States for other than a temporary purpose. Awards are based on demonstrated financial need which is determined by a national formula applied uniformly to all applicants.

The Supplemental Educational Opportunity Grant Program provides aid to students who show need for assistance in attending college. Supplemental grants range in value from $100 to $4,000 per year, with the cumulative maximum of $12,000. To be eligible for a grant at UNCW, a student must be enrolled in a degree program and must be a citizen or permanent resident of the United States. The application and Financial Statement must demonstrate exceptional financial need. Full time student applicants are given priority when funds are limited.

The North Carolina Student Incentive Grant Program is administered by College Foundation, Inc., for legal residents of North Carolina accepted or enrolled full time and in good standing in an undergraduate program of study. Students must demonstrate substantial financial need as determined through the Financial Aid Form of the College Scholarship Service or the Family Financial Statement of American College Testing Program. Students should see that the completed Financial Statement is sent with the processing fee as soon after January 1 as possible, but not later than March 15; late filers will be considered if funds are available.

UNCW Grants provide needy and worthy students with awards which cover tuition costs. To be eligible for one of these grants a student must be enrolled for at least 12 hours and have at least a 2.0 grade point average. Competition for these grants, however, generally results in higher grade point requirements.

Athletic Grants-In-Aid are awarded to qualified students selected by members of the coaching staff. Additional information may be obtained by writing to the Director of Athletics.

The North Carolina National Guard Tuition Assistance Program is state funded Tuition Assistance Program for active members of the North Carolina Guard. This program will pay the cost of tuition per academic year for a maximum of four years. For additional information contact:

Office of the Adjutant General
North Carolina National Guard
Attn.: AGRR
P.O. Drawer 26268
Raleigh, N.C. 27611
(919) 733-3770 Ext. 175

GENERAL SCHOLARSHIPS

UNCW Scholarships are awarded to students for talent and outstanding achievement. These scholarships are $500.00 per year and are awarded through the Financial Aid Office by various departments, organizations, and campus publications.

The H.M. & Pearl Kyle Foundation Scholarship is awarded annually to a worthy and deserving student. It is the intent of the donors that the scholarship be awarded to a person who can establish some sense of need and who is from eastern North Carolina or eastern South Carolina. Because the scholarship may be renewed on the strength of academic performance and continued need, a new recipient may not be named every year.

The Pilot Club Scholarship is awarded annually by the Pilot Club of Wilmington to a worthy and deserving student. Students with a handicap are given special consideration in the awarding of this scholarship.

The Zonta Scholarship is awarded annually to a UNC-Wilmington female student of junior or senior standing, or a female graduate student enrolled in an approved program. She should be enrolled at least half time and have an overall grade point average of 3.0, have leadership potential, be of high ethical standards, and show promise in her chosen profession.

The University Women of UNCW Scholarship is awarded annually to a female undergraduate student enrolled full time who has completed at least 60 semester hours. First consideration will be given to the student who demonstrates academic ability with financial need as second consideration.

The Lucille Murchison Marvin Scholarship is awarded each year to two students at UNCW who have grade point averages of at least 3.0 and who demonstrate scholarship ability and financial need.

The Eliza Collins Scholarship is awarded yearly to several students who demonstrate scholastic ability and need.

The Henry Harrell, Sr., and Alma M. Harrell Scholarship is awarded annually to students who have a grade point average of 3.0 or better and have an exceptional financial need.

The C. M. and M. D. Suther Scholarship is awarded annually to deserving high school graduates who would not otherwise be able to attend college. The scholarship amount will be approximately $950.00 annually.

The Devereux Haigh Lippitt Scholarship is awarded annually to a North Carolina student based on academic achievement. This scholarship covers the in-state cost of tuition and fees and is given in memory of Mr. Devereux Haigh Lippitt by his family.

The Elizabeth Dudley Urquhart Memorial Scholarship Fund provides a tuition and fees scholarship to an academically talented student who demonstrates financial need. The recipient must have completed the last two years of high school in a New Hanover County Public school.

Eddie Godwin, III Memorial Scholarship of $1,000.00 is awarded to a graduate of New Hanover High School. Applicants must be able to demonstrate financial need through the regular financial aid process. Applicants should also show evidence of self help and acceptable academic standing. Though not required, athletic participation at the high school level is desirable.

The Alumni Association Academic Scholarship Program provides annual, renewable in-state tuition and fees scholarships based on academic achievement and potential. Students must be classified as North Carolina residents for tuition purposes. Applications, secured from the UNCW Alumni Affairs Office, must be completed and returned to that office by March 15.

The Mary Courtney Hardison Scholarship(s) are intended for female freshman students who are graduates of any accredited high school in New Hanover County. Preference should be given to female students who have been active in high school activities, including organized athletics. Recipient(s) shall be selected based on a combination of academic achievement and demonstrated financial need.

The Army ROTC Scholarship and Simultaneous Membership Program. The Department of Military Science can assist UNCW students in applying for one of the Army's more than 12,750 Army ROTC Scholarships given annually. All academic majors are accepted and students can apply for two and three year scholarships. For more information contact the Professor of Military Science. Additionally, students might consider the Simultaneous Membership Program. By participating in the UNCW ROTC program and simultaneously enlisting in the North Carolina Army National Guard or United States Army Reserve, a student can receive up to $20,000 over a four year period. The National Guard and United State Army Reserve offer tuition assistance, loan repayment programs, enlistment bonuses, drill pay and the opportunity to receive the benefits of the G.I. Bill. For more information, contact the Professor of Military Science.

The New Hanover Memorial Hospital Auxillary Scholarship of $500 is awarded each year to a student pursuing studies in a health related field. Candidates must be graduates of a New Hanover County high school, be of good character, and be active in school and community activities. Entering freshmen must be in the top 10 percent of their graduating class and have scored at least 900 on the SAT. In the event that more than one student qualifies academically, need shall be a determining factor. This scholarship is renewable contingent on continuing satisfactory academic progress. Consequently, this scholarship may not be open each year to new candidates. Inquiries and requests for application forms should be directed to the Financial Aid Office.

The Rotary Club of Wilmington provides an annual tuition and fees scholarship to an undergraduate applicant who demonstrates academic strength, good character traits, and financial need.

The Aaron and Elizabeth Silverman Scholarship Fund provides a tuition and fees scholarship to academically strong students. Scholastic achievement and graduation from an accredited North Carolina high school are the only criteria. The scholarship(s) can be awarded to a prospective student or to those students currently enrolled.

The Wilmington Business and Professional Women USA Scholarship of $1,000 is awarded annually to a female student who plans to pursue a business or professional career. Applicants must demonstrate financial need, academic achievement, and clearly stated educational goals. Applications may be obtained from the Financial Aid Office.

The Wilmington Women's Club Scholarship is awarded to a New Hanover County high school graduate who demonstrates academic achievement and financial need. A recipient may continue to receive this scholarship if a 3.0 grade point average is maintained.

Laurance Bell Scholarship is given annually by the Port City Chapter, National Association of Black Social Workers in memory of Laurance Bell. The scholarship is to be used to increase minority presence at UNCW. The number and amount of awards are determined by earnings of the fund. Recipients of the award are urged to repay the scholarship upon entrance into the work force.

UNCW Bookstore Textbook Scholarships are awarded annually to two students in each academic department. The recipients are selected by each department based on academic achievement and extracurricular activities. Each recipient is awarded a $125.00 UNCW Bookstore Textbook Scholarship Certificate which must be presented to the UNCW Bookstore when purchasing textbooks.

COLLEGE OF ARTS AND SCIENCES SCHOLARSHIPS

The Department of Biological Sciences annually awards three scholarships. The **Herbert and Shirley Mintzes Memorial Award** is made to the rising sophomore with the highest standing in the sequence of introductory biology courses (BIO 205, 206, 207); the recipient is chosen by the course instructors. The **Dovie P. Bowden Scholarship** is awarded to a student of junior standing on the basis of scholarship and need; eligible students should contact the department chairman to apply. The **Franklin H. Allen Scholarship** is awarded to a rising senior on the basis of grade point average and other evidence of achievement; the recipient is chosen by a faculty committee.

The Hutaff Scholarship Program awards annual scholarships to a student who has been accepted into the UNCW School of Nursing and four scholarships to students in the humanities. Recipients will be selected on demonstrated financial need and academic and leadership potential.

The Wilmington Coca-Cola Scholarship is awarded to a student enrolled in one of the humanities. Character, leadership and demonstrated financial need will be factors in determining recipients. Consideration will also be given to candidates who have shown evidence of self help.

The Ernest Stephen Prevost Scholarship is awarded to an undergraduate student majoring in chemistry. The recipient will be selected based on a demonstrated financial need and proven academic ability. For information contact the chairman of the Department of Chemistry.

The Cape Industries Scholarship is awarded to a chemistry major at UNCW who has a high grade point average. Interested students should contact the Department of Chemistry.

The LAQUE Scholarship is an annual scholarship awarded to a chemistry major. Students interested in applying for this scholarship should contact the chairman of the Department of Chemistry.

The Wright Chemical Corporation Scholarship is awarded to a chemistry major. Students interested in applying for this scholarship should contact the chairman of the Department of Chemistry.

The American Society for Qualified Control Scholarship. The Wilmington section of the American Society for Quality Control has established an academic scholarship for a rising senior majoring in math with a strong background in statistics or for a rising senior in the field of business. The amount of the award will be the equivalent of in-state tuition for two semesters. Interested applicants should contact the chairman of the Department of Mathematical Sciences.

The Helena R. Cheek Memorial Scholarship is awarded by the Department of Foreign Languages and Literatures to a student who demonstrates special ability in the area of foreign language study and overall academic excellence. This scholarship is given in memory of Helena R. Cheek by her family and friends.

The William F. Adcock, Jr., Music Scholarship is awarded to a student who plans to graduate from UNCW with an emphasis in music and who has no more than 36 hours to complete for graduation. The award will be based upon overall excellence in music, above-average academic record and acceptable performance standards.

The A. J. Fletcher Music Scholarship is a competitive scholarship awarded to music majors who demonstrate through audition and scholastic record high proficiency in music performance and strong achievement in academic work.

The J. Rupert Bryan Scholarship is awarded to a political science major with financial need. Candidates must be able to demonstrate creativity, curiosity, and academic worthiness.

The James E. L. Wade Scholarships in History and Political Science are awarded to high school seniors who have a B average or above on high school work, an interest in history or political science as a major, and financial need. For additional information, contact the appropriate department chairman.

The J. Marshall Crews Scholarship is awarded annually to a major in the Department of Mathematical Sciences. Selection is based upon academic excellence, extra-curricular activities, and faculty recommendation. Applicants seeking further information should contact the Department of Mathematical Sciences.

The Fred Toney Scholarship is awarded each year based upon balloting by the faculty of the Department of Mathematical Sciences. Criteria include academic excellence and extracurricular activities. Inquiries should be directed to the chairman of the Department of Mathematical Sciences.

The R & E Electronics Scholarship is an annual scholarship awarded primarily to a minority sophomore student in pre-engineering studies who graduated from a North Carolina high school. The scholarship is based on academic ability and financial need.

The Wilmington Arts Association Scholarship is awarded to a junior or senior majoring in the arts division of the Creative Arts Department. Academic excellence and artistic merit will be criteria for determining recipients.

CAMERON SCHOOL OF BUSINESS SCHOLARSHIPS

The W.A. Corbett Scholarship is awarded annually to a junior or senior in the Cameron School of Business Administration with a grade point average of 3.0 or better who is planning a career in the field of business. For information and application forms, contact the Office of Financial Aid or the dean of the Cameron School of Business Administration.

The William S. Holland Scholarship for accounting majors, established in honor of William S. Holland, retired partner of Cherry, Bakaert and Holland, Certified Public Accountants, and a member of the first graduating class of Wilmington College, is awarded annually. For information and application forms, contact the chairman of the Department of Accountancy.

The Harold M. Cole Scholarship for accounting majors, is awarded to native born Moore County residents who are graduates of a secondary or preparatory school and in need of financial assistance to attend school. The deadline for receipt of applications is April 15 for upcoming fall enrollment. For information and applications contact the Financial Aid Office.

The Jesse L. Marshall Scholarship is awarded to a junior or senior in the Cameron School of Business Administration who has demonstrated both financial need and scholastic ability. Applicants may apply to the dean of the Cameron School of Business Administration.

The Lower Cape Fear Personnel Association Scholarship, established for students planning to concentrate in the study of management, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairman of the Department of Management and Marketing.

The North Carolina National Bank Scholarship is awarded annually to a student with an indicated interest in a career related to banking and/or finance. For information and application forms, contact the Financial Aid Office or the dean of the Cameron School of Business Administration.

The Sales and Marketing Executives International Association (Cape Fear Chapter) Scholarship, established for students concentrating in the study of marketing, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairman of the Department of Management and Marketing.

The United Carolina Bank Scholarship, established for students with an indicated interest in banking or finance, is awarded annually on the basis of scholastic ability, financial need, and recommendations by the faculty. For information and application forms, contact the chairman of the Department of Economics and Finance.

SCHOOL OF EDUCATION SCHOLARSHIPS

The Paul Douglas Teacher Scholarship Program authorized by the U.S. Congress provides college scholarships to outstanding undergraduates who have chosen to pursue teaching careers at the preschool, elementary, or secondary level. Applicants are evaluated on the basis of academic performance, leadership, extracurricular participation, and promise of service as a teacher. PDTS awards are valued at up to $5,000 annually and may be received for a maximum of four undergraduate academic years, subject to congressional appropriations. The amount of the PDTS award may not exceed the recipients' cost minus other financial aid received. This scholarship converts into a loan commitment required by this award. Inquiries should be directed to the School of Education.

The N.C. Teaching Fellows Program is designed to identify talented students interested in teaching, and to assist those students in becoming teachers by the award of scholarship/loans for four years of undergraduate study, repayable through the means of service. Award recipients will receive annual awards of $5,000 for each of their four college years subject

to legislative appropriation. Consideration under this program is given to entering freshman. Interested applicants should contact their high school Guidance Office.

The N.C. Prospective Teacher Scholarship/Loan Program provides assistance to prospective North Carolina teachers. The program provides a $2,000 per year loan which will be cancelled if the student teaches in North Carolina public schools after graduation. The program is administered by the Department of Public Instruction. Inquiries regarding the program should be directed to N.C. Prospective Teachers Scholarship Program, State Department of Public Instruction, Raleigh, NC 27611. To be eligible for this program a student must be enrolled for at least 12 hours and be a North Carolina resident.

The Lee V. Landing Scholarship is established for the purpose of recognizing and encouraging academic excellence among students in The University of North Carolina at Wilmington School of Education. Recipients will be selected based on academic achievement and demonstrated financial need.

The James Ozborn Carr Scholarship is awarded to students in the School of Education. Character and leadership potential will be factors in determining recipients. The scholarships are restricted to graduates of Southeastern North Carolina high schools. The scholarships are designed to attract and retain academically strong students.

The Ann Durant Walker Scholarship Award The Alpha Psi Chapter of Alpha Delta Kappa awards a scholarship to a junior or senior majoring in Special Education. The scholarship is given in memory of Ann Durant Walker who helped develop the Special Education Program in New Hanover County.

The Sue McCall Boone Scholarship for education majors was established to provide a scholarship for a New Hanover County student who demonstrates a financial need at UNCW. The scholarship is named in honor of Miss Sue Boone, New Hanover educator, who contributed over 50 years of service in the community. The scholarship is awarded to one student biennially in the amount of tuition.

The Robert L. Ostrand Memorial Scholarship was established by his family in memory of Robert L. Ostrand, whose life was characterized by a devotion to education. This scholarship is awarded annually to a senior in the School of Education whose academic and service accomplishments exemplify the ideals of the profession of education.

SCHOOL OF NURSING SCHOLARSHIPS

The Edith Graham Toms Scholarship is a memorial scholarship awarded to an outstanding nursing student. This scholarship is valued at the in state rate for tuition and fees plus books and supplies. Applicants must be admitted into the School of Nursing.

The Medical Auxiliary Scholarship is awarded to a nursing student, second-or third-year medical technology student, or junior or senior pre-medical student who is a resident of New Hanover, Pender, or Brunswick County and who demonstrates financial need and scholastic ability.

The Hutaff Scholarship Program awards annual scholarships to a student who has been accepted into the UNCW School of Nursing and four scholarships to students in the humanities. Recipients will be selected on demonstrated financial need and academic and leadership potential.

The Forty and Eight Nursing Scholarship is an academic scholarship established by Voiture 245, the Forty and Eight of American Legionnaires, in joint memory of Voyageur Militaire John H. McInnis and Miss Dorothy Dixon, and is open to nursing students who graduated from high school in New Hanover, Pender, or Brunswick County.

The Ministering Circle of Wilmington awards scholarships on the basis of scholastic ability, financial need, and recommendation, to students accepted in the School of Nursing at UNCW.

The Juanita Borneman Memorial Scholarship, awarded to a student from rural North Carolina, approximates the cost of tuition.

The Billie Burney Memorial Scholarship, started by family and friends of the late Billie Burney, is awarded annually as a tuition scholarship to a student in the field of nursing.

The Louise Ogden Wright Nursing Scholarship is a $500 scholarship given annually by Mrs. Andrew Harriss in memory of her mother. The recipient is selected on the basis of financial need, academic record, and professed intention to pursue nursing as a career.

The Theresa Bentsen Warrick Memorial Nursing Scholarship is awarded to a nursing student demonstrating financial need and proved academic and clinical achievements. Applicants must be graduates from N. C. high schools and present an overall grade point average of at least 2.5.

EMPLOYMENT

The College Work-Study Program, which is federally funded, provides part-time jobs on the UNCW campus for students who have financial need and who must earn part of their education expenses. To be eligible for work-study, a student must be enrolled in a degree program and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need. Full time student applicants are given priority when funds are limited.

The Institutional Work Program, also known as the Work Assistant Program, makes funds available for campus jobs for students. These funds are allocated to departments with the selection of student work assistants controlled by those departments. Studentsreceiving any type of financial aid must receive clearance through the Financial Aid Office before accepting work positions under this program. Students interested in the program should directinquiries to the department in which they prefer to work.

Off-Campus Employment is coordinated by the Career Planning and Placement Center. The office publicizes specific job openings, makes individual referrals, announces recruiting visits, and keeps on file company literature, information about public and private schools, and state and federal government opportunities. Students interested in using the services of this office should register with the Career Planning and Placement Center to establish a credentials file.

LOANS

Supplemental Loans for Students

Supplemental loans provide funds for students to cover their college expenses in addition to those borrowed under the Guaranteed Loan program. These loans are available to independent undergraduate and graduate students who meet federal eligibility, the credit worthiness of the borrower is of primary importance. Students may borrow up to $4,000 per year for a cumulative total of $20,000. However, no student may borrow more than his cost of education minus other aid received. Repayment begins immediately with the first installment due 60 days after receipt of your money. A variable interest rate will be calculated annually based on a federal formula but cannot exceed 12 percent.

Parent Loans for Undergraduate Students

Parent loans may be secured to assist in covering educational costs. Parents may borrow up to $4,000 per year for a combined total of $20,000. However, a parent may not borrow any amount that would make the total amount of financial assistance that both the student and parent receive greater than the cost of attendance at UNC-Wilmington. In determining eligibility, the credit worthiness of the borrower is of primary importance. A variable interest rate will be calculated annually based on a federal formula. The new rate will begin each year but cannot exceed 12 percent.

Stafford Students Loans provide students with long term, low interest loans. Under this program a student may borrow up to $2,625 for each of the first two years in school and $4,000 for each of three additional years. All borrowers are required to complete the regular financial aid process and establish their eligibility on a basis of financial need. Repayment of these loans begins six months after a student ceases to be enrolled at least half time and borrowers are permitted up to 10 years for repayment. The interest on the loan begins at the time of repayment and is calculated at eight percent but rises to ten percent during the fifth year of repayment. Students determined eligible for a loan through the North Carolina central lender (College Foundation, Inc.) will receive and application/promissory note with their award letters. Students wishing to apply for a loan through other lenders must submit an application from that particular lender to the Financial Aid Office. For additional information, contact the Financial Aid Office.

Perkins Loans provide needy students with long-term, low-interest loans for educational expenses. Under this program students may borrow up to $4,500 for the first two years of study and a total of $9,000 for undergraduate study. Repayment begins nine months after graduation or withdrawal from school, and the borrower may take up to ten years to repay the loan. The interest rate is five percent and does not begin accruing until six months after graduation or withdrawal from school. All or part of the loan can be cancelled by teaching or military service. Applicants must complete the regular financial aid process. To be eligible for a Perkins Loan, a student must be enrolled in a degree program and must be a citizen or permanent resident of the United States. Full time student applicants are given priority when funds are limited.

The North Carolina Prospective Teachers Scholarship-Loan Program provides assistance to prospective North Carolina teachers. The program provides a $2000-per-year loan which will be cancelled if the student teaches in North Carolina public schools after graduation. The program is administered by the Department of Public Instruction. Inquiries regarding the program should be directed to N.C. Prospective Teachers Scholarship Program, State Department of Public Instruction, Raleigh, N.C. 27611. To be eligible for this program a student must be enrolled for at least 12 hours and be a North Carolina resident.

The North Carolina Student Loan Program for Health, Science and Mathematics provides financial assistance to North Carolina residents who demonstrate need as determined by the Board for Need-Based Medical Student Loans. Loans are available for study in the medical fields, mathematics and science programs that lead to a degree. Additional information can be obtained by writing to

The Student Loan Program
116 West Jones Street, Room 279
Administration Building, Suite 279
Raleigh, North Carolina 27611

ACADEMIC CONSIDERATIONS

Time Limitation Policy for Determining Eligibility for Financial Aid

A student is allowed up to two additional years beyond the traditional four-year track to complete the undergraduate degree. Any semester in which he or she registers and does not withdraw within the formal drop-add period will be counted, regardless of student's financial status.

Additionally, a student is determined to be no longer eligible for Federal Pell Grant Program once the required hours for graduation have been met. This is true regardless of whether or not the student applies for graduation.

Satisfactory Progress

To be eligible to receive or to remain eligible to receive financial aid funds, undergraduates must maintain satisfactory progress: in their course of study. A determination of satisfactory progress incorporates two standards applied at the end of the regular academic year.

Standard one requires that full-time students must complete 10 hours (approximately one-twelfth of total hours required for graduation). In the case of a student who changes his or her enrollment status from fall to spring semester, the hours which must be completed will be averaged. **Standard two** involves a qualitative measurement, as shown in the following chart establishing grade standards for hours attempted.

DEGREE STUDENTS		UNCLASSIFIED STUDENTS	
Hours Attempted	**GPA**	**Hours Attempted**	**GPA**
6 -26	1.2	1-6	1.2
27 -58	1.5	7 -12	1.5
59 -88	1.8	13 -18	1.8
89 or more	2.0	19 -27	2.0

NOTE: Students enrolled under the three-year rule will be required to meet a minimum 2.0 GPA each term and meet·the quantitative measurement of standard one.

The standards of progress outlined for financial aid recipients are not applicable for purposes of continued enrollment, since such determinations will be made by the University in accordance with institutional policy.

A preliminary review will be made at mid-year (following fall semester) to identify those students not meeting the required academic standards. Full time students not successfully completing at least 10 hours, and less-than-full-time students not completing at least 5 hours will be determined deficient. Students not meeting the academic requirements outlines on the retention chart will be issued a warning. Financial aid recipients who fail to meet both standards at the end of the spring semester will lose their continuing eligibility as aid candidates for subsequent periods of enrollment.

Eligibility lost due to shortage of hours can be regained by successfully completing at least 10 hours plus the number short (for full time students) or as least 5 hours plus the number short (for less than full time students) during the regular term. Eligibility lost due to failure to meet academic requirements can be regained by bringing the G.P.A. up to the standards outlined on the retention chart.

Students terminated from aid because of failure to meet satisfactory progress standards may appeal when mitigating circumstances exist. A student who through appropriate administrative review of mitigating circumstances is authorized to continue with his or her studies on a conditional basis is considered to meet the requirements of satisfactory progress.

Repeating of Courses

Repeating courses on which credit has already been received may not be counted in determining enrollment status for financial aid awards. For example, a student taking 12 credit hours, three of which were repeated courses with a previous grade of "D" or better would be considered taking nine hours for financial aid purposes.

Transfer Students

Each newly-enrolling student, whether freshman or transfer, is initially assumed to be making satisfactory progress. Additionally, the number of hours accepted as transfer hours will be used to place the student within the time frame allowed to complete the undergraduate degree.

VETERANS SERVICES

Veterans Services are administered under the umbrella of Student Financial Aid at UNCW. Veterans services are intended to meet the needs of students receiving benefits under the old G.I. Bill, Dependents, the Vocational Rehabilitation Program, and the New G.I. Bill which replaces the Chapter 34 veterans and Chapter 106's which are the reservests from all branches of the service. Services provided include peer and professional counseling, remedial and tutorial services, and certification for qualifying veterans and their dependents. The primary concern of Veterans Services is to assist students, monitor their course work, and insure the individuals utilizing veterans benefits keep in line with their prescribed curriculum and successfully complete their desired educational objective.

All veterans and dependents receiving V.A. Educational Benefits are required to come to the Financial Aid Office each semester and complete a class schedule. Any change in the veteran's course of study should be cleared with the veteran's counselor in the Financial Aid Office to insure continuation of benefits. Transfer students are reminded that the office must have copies of all transcripts before certification can be made to the Veterans Administration for payment.

In determining eligibility for V.A. educational funds, the chart on page 43 will apply to all veterans and dependents using G.I. Benefits for their training at this University. Any full time student who fails to pass at least three hours during any semester is subject to academic dismissal for one semester, regardless of his or her quality point standing.

STUDENT AFFAIRS

STUDENT AFFAIRS

The basic mission of the Division of Student Affairs is to encourage student use of personal, institutional, community, and other resources toward the goals of individual development, self-fulfillment, and a responsible citizenship. Its programs and services are directed toward assisting students in their educational and personal development.

OFFICE OF THE DEAN OF STUDENTS

The Office of the Dean of Students serves as the primary focal point for addressing student needs, issues and concerns, and serves as a resource and referral office for all faculty, staff and students. Acting in an advocacy role, the dean and assistant dean of students represent the student perspective to the University community. This office works with all segments of the University to help students develop through opportunities, advice and assistance. Within the Student Affairs Division, the Office of the Dean of Students provides consultation, new program development and assistance to the vice chancellor with special projects. Specifically, the office assists in the coordination of orientation for freshmen and transfer students, advises international, non-traditional students and commuter students, publishes the *Student Handbook and Code of Student Life*, administers the student judicial system, including violations of the Academic Honor Code; coordinates the official withdrawal process from the University for undergraduate students; and assists the Office of Federal Compliance in processing cases of discriminatory personal conduct, including sexual harassment. Additionally, the Office of the Dean of Students coordinates programs and policy on rape prevention and assistance, substance abuse education and prevention, and implements developmental programs to meet assessed and perceived student needs. The Office of the Dean of Students also provides supervision for the Residence Life Program and ALTERNATIVES! the Substance Abuse Education and Prevention Program.

ALTERNATIVES!

The Alternatives! program is responsible for providing a systematic and comprehensive set of services for substance abuse education and prevention to all segments of the University community. The center serves as a highly visible and accessible multi-media resource area containing drug education materials, as well as information on alternatives to drug use. Personal growth and self-concept enriching experiences are provided to students through alternative learning opportunities. The center serves as a clearinghouse for other campus and community resources and provides consultation, information, or referral as appropriate. Additional educational opportunities for the entire campus are offered as needed. The terms "substance" and "drug" are intended to include all psychoactive chemicals including alcohol, stimulants, depressants, opiates, and hallucinogens.

UNIVERSITY UNION

The University Union exists to provide support and give direction to out-of-classroom learning. Based on the philosophy that the process of learning is not confined to the classroom, but instead is a constant and ongoing process, the mission of the Union is to facilitate the educational process by providing a laboratory experience for student growth, and an arena for the development of cultural, social, and recreational awareness. This is accomplished through the administration of the Union facility, its programs and services, providing resources to student organizations, and serving as the campus's central point of reference in regard to student activities and organizations.

STUDENT DEVELOPMENT SERVICES

Student Development Services, which include the Student Development Center and the Career Planning and Placement Center, provide support and assistance for students personal, career, social and learning skill development. The services help students build satisfying and successful college experiences and prepare for the transition from college to work or to graduate study.

Student Development Center

The Student Development Center provides confidential individual and group counseling for personal, social, career or educational concerns, decision-making resources for careers and college majors include a computer guidance system, aptitude and interest testing, and an information library. Special assistance is offered with learning strategies, study, reading and exam-taking skills. Workshops are regularly scheduled on these topics as well as on personal growth, communication skills and stress management. As part of the University substance abuse education and prevention program, the Center also provides substance abuse assessment, referral and treatment for faculty, staff and students.

The Center acts as a clearinghouse for disabled students' concerns and assists with tutoring, equipment and advocacy needs. The office also administers national testing programs such as the SAT, GRE, GMAT, NTE and MAT.

Consulting and referral services are provided by the Center's staff for university faculty, staff and student groups.

Career Planning and Placement Center.

The Career Planning and Placement Center provides career planning and placement services to students and alumni of UNCW. Assistance in developing career plans is available through individual advising, workshops and seminars. The office also provides information and counseling on careers, specific job requirements, employers, and graduate school programs. Students are encouraged to use these services early in their college career.

The office publicizes specific job openings (part-time, summer and full-time); makes individual referrals; schedules recruiting visits; keeps company literature; and provides information about public and private schools, and state and federal government opportunities.

Seniors should register with the Career Planning and Placement Center early in their final year to establish a credentials file and to avail themselves of all placement services including resume writing, interviewing skills and planning a job search.

RESIDENCE LIFE PROGRAM

The Office of Residence Life, located in Residence Life Activity Center, is responsible for the development of educational, cultural and social programs to enhance student life on campus. The purpose of the Residence Life program is to create an environment conducive to academic and social growth within the halls. The office is responsible for the supervision of all students who reside in the residence halls and the apartment buildings.

The University has residence hall facilities for approximately 800 men and 800 women in modern, conveniently located residence halls. In addition, 400 spaces are available in 13 apartment buildings. All rooms are air-conditioned and furnished, and laundry facilities are available. Residence hall students are required to take their meals in the University cafeteria under a five-day or seven-day plan. Students living in the apartments are required to take a limited meal plan.

FOOD SERVICE

The University operates a modern, air-conditioned cafeteria building. Short-order food service is available in the University Hawk's Nest located in the University Union. Service is on a cash basis for non-boarding students.

STUDENT HEALTH AND WELLNESS CENTER

The Student Health and Wellness Center (SHWC) located in the Student Support Center is open 8:30 a.m. to 6:30 p.m., Monday through Friday. After 6:30 p.m. during the week and all weekend a Hanover Medical Specialists physician is on call for urgent or emergency medical care.

The Student Health and Wellness Center (SHWC) provides diagnosis and treatment of general and acute medical problems. The health fee is part of the student fee and entitles students taking 6 or more credit hours* (living on or off campus) to health care services. The SHWC is staffed by a physician, one physician assistant, one family nurse practitioner, two nurses, a medical assistant, and the coordinator of health promotion.

In addition to the treatment of general medical problems, the scope of services include: laboratory testing to diagnose a variety of medical problems, allergy injections, gynecologic examinations and counseling, weight control and nutrition counseling, smoking cessation, crisis intervention, and referral as indicated. The Student Health and Wellness Center does **not** issue excuses for class absences due to illness.

Each newly admitted UNCW student is required to have the following forms on file in the SHWC prior to enrollment: 1.) a completed and up to date Report of Medical History and Physical Examination and 2.) a completed and up to date Immunization Record required by the N.C. Immunization Law (General Statues 130A-152).

*Students taking less than six hours will be entitled to health care services upon payment of the health fee and will be required to have the above forms on record.

STUDENT HEALTH INSURANCE The student health fee covers most medical care given at the Student Health and Wellness Center on a prepaid basis. The health fee will not cover the costs of a student who requires hospitalization or specialty care. It is strongly recommended that students who are not covered for major medical expenses (serious injuries due to accidents or hospitalization) under their family health insurance contact the SHWC or the Office of the Dean of Students for information and forms regarding the Student Group Health Insurance Plan available at a nominal cost through the University.

OFFICE OF HEALTH PROMOTION/LIVWELL

The Office of Health Promotion/Livwell is the outreach wellness program of the Student Health and Wellness Center designed to encourage and support healthy lifestyle choices and behaviors.

The office is located in the Livwell/Alternatives Center, University Union 104, and provides wellness opportunities that include seminars, lifestyle and nutritional assesments, resource materials, and other health related information.

RELEASE OF "DIRECTORY INFORMATION"

The University of North Carolina at Wilmington has routinely made public certain information about its students. Typically, UNCW releases the names of students who are selected by the various honorary societies, receive scholarships, make the Dean's List, hold offices, or are members of athletic teams. The annual commencement program publishes the names of persons who have received degrees from UNCW during the year.

The Family Educational Rights and Privacy Act defines the term "directory information" to include the following information: the students name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. The University will make public information about each student limited to these categories in ways such as those described above. Of course, information from all these categories is not made public in every listing.

Students who do not wish to have any or all of such "directory information" made public without their prior consent must notify the Office of the Registrar of this fact in a signed and dated statement specifying items not to be published. This notice must be received by the Office of the Registrar by the end of the registration period for the semester or session of first enrollment or, after an absence, of re-enrollment and by the end of each fall registration thereafter.

STUDENT CONDUCT

The filing of an application of admission shall be construed as both an evidence and pledge that the applicant accepts the standards and regulations of The University of North Carolina at Wilmington and agrees to abide by them. Each student, by the act of registering, is obligated to obey all rules and regulations of the University as stated in the *Student Handbook and Code of Student Life*, the University catalogue and other University publications. The University reserves the right to ask for the withdrawal of any student who refuses to adhere to the standards of the institution.

STATEMENT OF UNIVERSITY POLICIES, PROCEDURES AND DISCIPLINARY ACTIONS IN CASES OF DISRUPTION OF EDUCATIONAL PROCESS

A policy statement was adopted by the Board of Trustees of the former consolidated University of North Carolina on October 26, 1970. It is set forth in Chapter V of the Code Provisions Governing the University of North Carolina, and is set forth in full in the *Student Handbook and Code of Student Life*.

POLICY STATEMENT ON ILLEGAL DRUGS

Students, faculty members, administrators, and other employees of The University of North Carolina at Wilmington are responsible, as citizens, for knowing about and complying with the provisions of North Carolina law that make it a crime to possess, sell, deliver, or manufacture those drugs designated collectively as "controlled substances" in Article 5 of Chapter 90 of the North Carolina General Statutes. A copy of this law is available in the following offices: Personnel, Dean of Students, and Academic Affairs. Any member of the university community who violates that law is subject both to prosecution and punishment by the civil authorities and to disciplinary proceedings by UNCW. In accordance with policy adopted by the Board of Governors of the University of North Carolina and the Board of Trustees of UNCW, disciplinary proceedings against a student, faculty member, administrator, or other employee will be initiated when the alleged conduct is deemed to affect the interests of UNCW.

Penalties will be imposed for violation of the policies of UNCW only in accordance with procedural safeguards applicable to disciplinary actions against students, faculty members, administrators, and other employees. The penalties that may be imposed range from written warnings with probationary status to expulsions from enrollment and discharges from employment. For more information, please refer to the Code of Student Life, The Code

of the University of North Carolina (Section 603) and Personnel Procedure No. 610.

Every student, faculty member, administrator, and other employee of UNCW is responsible for being familiar with and complying with the terms of the policy on illegal drugs adopted by the Board of Govenors of The University of North Carolina and the Board of Trustees of UNCW. Copies of the full text of that policy appear below as well as in the Code of Student Life, Faculty Handbook, and it is available in the Personnel Office.

POLICY ON ILLEGAL DRUGS

Introduction

The fundamental purpose of the University of North Carolina at Wilmington (UNCW) is to maintain an environment that supports and encourages the pursuit and dissemination of knowledge. That environment is damaged by illegal drug use. Therefore, all members of the academic community, students, faculty members, administrators, and other University employees, share the responsibility for protecting the environment by exemplifying high standards of professional and personal conduct.

Policy and Program

A. The illegal use, possession, sale, delivery and/or manufacture of drugs will not be tolerated and may be grounds for immediate suspension or dismissal of students, faculty members, administrators and other University employees.

B. UNCW policies and programs are intended to emphasize

1. The incompatibility of the use or sale of illegal drugs with the goals of the university.
2. The legal consequences of involvement with illegal drugs.
3. The medical implications of the use of illegal drugs.
4. The ways in which illegal drugs jeopardize an individual's present accomplishments and future opportunities.

C. UNCW provides a systematic substance abuse education and prevention program designed to reach all segments of the campus community. To assist in accomplishing this mission, the Center for Substance Abuse Education and Prevention has developed a well-integrated centralized program that is a focal point for campus substance abuse education, training, and prevention which monitors the effectiveness of programs for constituencies served. This Center provides substances abuse counseling and referral services on campus and in the external community. It also provides consultative services to offices and agencies in the University environment and collaborates with the employee assistance coordinator in the University Personnel Office to develop counseling and referral services for faculty and staff desirous of seeking assistance off-campus. This UNCW Policy on Illegal Drugs is presented within the four areas of education, counseling and rehabilitation, enforcement and penalties, and assessment.

Education

A. Provide a system of accurate, current information exchange on the health risks and symptoms of drug use for students, faculty and staff.

B. Promote and support institutional activity programming that discourages substance abuse.

C. Establish collaborative relationships between community groups and agencies and the institution for education, treatment and referral.

D. Provide training programs for students, faculty, and staff to enable them to detect problems related to drug use, and to refer persons with these problems to appropriate assistance.

E. Include information about drugs for students and family members in the student orientation programs. The use of prescription and over-the-counter drugs will be addressed.

F. Support and encourage faculty in incorporating education about drugs into the curriculum where appropriate.

G. Develop a coordinated effort across campus for drug related education, treatment and referral.

Counseling and Rehabilitation

A. UNCW provides information about drug counseling and rehabilitation services to members of the University community. Persons who voluntarily avail themselves of University services can be assured that applicable professional standards of confidentiality will be observed. Counseling and rehabilitation services include:

1. Provision of training for professional staff and student staff on drug abuse information, intervention and referral.

2. Conducting education programs for students who have demonstrated abusive behavior with drug problems.

3. Conducting individual and group counseling for members of the University community with drug problems.

4. Conducing drug abuse assessments.

5. Coordinating referral and follow up of campus individuals and developing a referral and follow up mechanism in collaboration with the Employee Assistance Coordinator in the Personnel Office.

6. Organizing campus self-help groups.

7. Providing consultation, information and referral for students, staff and faculty with drug problems.

8. Designing and developing referral opportunities for members of the University community who desire to seek professional assistance beyond the campus. This will be done in cooperation with the employee assistance coordinator in the Personnel Office.

9. Providing with peer involvement a system of intervention and referral services for students, faculty and staff.

B. In providing the above prevention strategies, it is recognized that some campus constituents may prefer professional assistance external to the campus. The campus community substance abuse education and prevention program coordinator will collaborate with the employee assistance coordinator in the development of appropriate referral mechanisms for these individuals. A listing of off campus resources for assistance and referral is available for those who choose that option. In the development of this program, it is desired that faculty, students, administrators and other employees be comfortable in the manner in which they are served and have a choice in the selection of appropriate assistance. Individuals served in the counseling program on campus can be assured that confidentiality will be maintained and that they will served by professionals.

Enforcement and Penalties

A. Enforcement:

In seeking to enforce established University policy, The University of North Carolina at Wilmington will:

1. Publicize all drug policies.

2. Consistently enforce drug policies.

3. Exercise appropriate disciplinary action for drug policy violations.

B. Penalties:

UNCW shall take actions necessary, consistent with state and federal law and applicable University policy, to eliminate illegal drugs from the University community. University policy on illegal drugs is publicized in the University catalog, student and faculty handbooks, student orientation materials, letters to students and parents, residence hall meetings, and faculty and employee meetings.

Students and faculty members, administrators, and other employees are responsible as citizens for knowing about and complying with the provisions of the North Carolina law that makes it a crime to possess, sell, deliver, or manufacture drugs designated collectively

as "controlled substances" in Article V, Chapter 90 of the North Carolina General Statutes. Any member of the University community who violates that law is subject to both prosecution and punishment by the civil authorities and disciplinary proceedings by UNCW. It is not "double jeopardy" for both civil authorities and the University to proceed against and punish a person for the same specified conduct. The University will initiate its own disciplinary proceedings against the student, faculty member, administrator, or other employee when the alleged conduct is deemed to affect the interest of the University.

Penalties will be imposed by UNCW in accordance with procedural safeguards applicable to disciplinary actions against students (see Code of Student Life, Section II), faculty members (see Policies of Academic Freedom and Tenure, UNCW, Section VII), and administrators and other employees (see Procedure No. PER 6.10 and Personnel Policies for Designated Employment Exempt from State Personnel Act-EPA Administrative Positions).[1]

The penalties to be imposed by the University may range from written warning with probationary status to expulsion from enrollment and discharge from employment; however, the following minimum penalties shall be imposed for the particular offenses described.

1. Trafficking Illegal Drugs

a. For a first offense involving the illegal manufacture, sale or delivery, or possession with intent to manufacture, sell or deliver any controlled substance identified in Schedule 1, North Carolina General Statutes 90-89 or Schedule 11, North Carolina General Statutes 90-90 (including, but not limited to, heroin, mescaline, lysergic acid diethylamide, opium, cocaine, amphetamine, methaqualine), any student shall be expelled and any faculty member, administrator, or other employee shall be discharged.

B. For a first offense involving the illegal manufacture, sale or delivery, or possession with intent to manufacture, sell or deliver, any controlled substance identified in Schedules 111 through VI, North Carolina General Statutes 90-91 through 90-94, (including, but not limited to, marijuana, pentobarbital, codeine), the minimum penalty shall be suspension from enrollment or from employment for a period of at least one semester or its equivalent.

For a second offense, any student shall be expelled, and any faculty member, administrator, or other employee shall be discharged.

2. Illegal Possession of Drugs

a. For a first offense involving the illegal possession of any controlled substance identified in Schedule 1, North Carolina General Statutes 90-89, or Schedule 11, North Carolina General Statutes 90-90-., the minimum penalty shall be suspension from enrollment or from employment for a period of at least one semester or its equivalent.

b. For a first offense involving the illegal possession of any controlled substance identified in Schedules III through VI, North Carolina General Statutes 90-91 through 90-94, the minimum penalty shall be probation for a period to be determined on a case-by-case basis. A person on probation must agree to participate in a drug education and counseling program, consent to regular drug testing, and accept such other conditions and restrictions, including a program of community service, as the Chancellor or Chancellor's designee deems appropriate. Refusal or failure to abide by the terms of probation shall result in suspension from enrollment or employment for any unexpired balance or the prescribed period of the probation.

C. For the second or other subsequent offenses involving the illegal possession of controlled substances, progressively more severe penalties shall be imposed, including expulsion of students and discharge of faculty members, administrators, and employees.

3. Suspension Pending Final Disposition

When a student, faculty member, administrator, or University employee has been charged by UNCW with a violation of policies concerning illegal drugs, he or she may be

suspended from enrollment and/or employment before initiation or completion of regular disciplinary proceedings if, assuming the truth of the charges, the Chancellor, or in the Chancellor's absence, the Chancellor's designee concludes that the person's continued presence within the University community would constitute a clear and immediate danger to the health or welfare of other members of the University community; provided that, if such a suspension is imposed, an appropriate hearing of the charges against the suspended person shall be held as promptly as possible thereafter.

Assessment

A. UNCW shall in its effort to continually assess the campus environment:

1. Appraise the institutional environment as an underlying cause of drug abuse.

2. Assess campus awareness, attitudes, and behaviors regarding the use of drugs and employ results in program development.

3. Collect and use drug related summary information from police and security reports to guide program development.

4. Collect and use summary health, counseling, and client information to guide program development.

5. Collect summary data regarding drug related disciplinary actions and use it to guide program development.

B. Annually, the Chancellor shall submit to the Board of Trustees a report of campus activities related to illegal drugs for the proceeding year. The report shall include the following:

1. A listing of major education activities conducted during the year;

2. A report on any illegal drug related incidents, including any sanctions imposed;

3. An assessment by the Chancellor of the effectiveness of the campus program; and

4. Any proposed changes in University policy on illegal drugs.

The Chancellor shall provide a copy of his report to the President.

[1] Rules of the State Personnel Commission govern the disciplinary actions that may be taken against SPA employees. Under current Commission regulations discharge, rather that suspension, is the applicable penalty for SPA employees in those instances where this policy otherwise requires suspension.

STUDENT LIFE

STUDENT LIFE

UNIVERSITY UNION

Student life is enriched at the University of North Carolina at Wilmington by a broad spectrum of activities, most of which occur in or around the University Union. The Union is a 53,000 square-foot facility which houses student organization offices, conference rooms, recreation and games facilities, lounges, study areas, snack bar, rental lockers, the University Information Center, U.S. Post Office, Wachovia Banking Machine, and an assortment of student services. With the guidance of the Office of Student Activities, students are provided opportunities to plan, execute, attend, and evaluate a wide variety of programs and activities. With the belief that education is not bound to the classroom, it is the University Union's goal to educate, entertain and enlighten the University community, while providing a laboratory for student growth and an arena for development of cultural, social and recreational awareness.

STUDENT ACTIVITIES OFFICE

The Office of Student Activities, located in the Union, works to expand and complement the student's education by providing support to the approximately seventy student organizations that are officially registered on campus. The Student Activities Office assists organizations with the planning, execution and evaluation of events and activities that are not only entertaining, but also educational. The office provides expertise in the areas of activity programming, contract negotiation, University policy and procedure explanations, budget preparation, publicity and promotion and organization development.

THE LEADERSHIP CENTER

The Leadership Center provides a comprehensive leadership program which promotes student and organizational development and awareness of contemporary issues through leadership training, education and development activities. These activities are varied, but include workshops, retreats, publications, speakers, resources, seminars, consultations, and self-assessments. Through collaboration among Student Affairs staff and academic faculty, a cohesive program is designed which teaches students how to recognize, evaluate and cultivate the potential strengths within themselves and others.

These programs improve the quality of the overall campus experience by providing opportunities to learn about and practice leadership. Ultimately, the program goal is to create a dynamic process that will continue after the student's college experience and encourage them to improve the world around them as active citizens in our changing democracy.

MINORITY AFFAIRS OFFICE

The Minority Affairs Office is responsible for the implementation of programs and activities designed to enhance the overall experiences of minority students at UNCW. Through direct sponsorship of or participation in Minority Visitation Day, orientation, workshops, recruitment, a minority mentor program, the tutorial assistance program, and other activities, the Office provides an added dimension to the traditional services offered to UNCW students. All students are invited to visit the office, in room 211 of the University Union, or call 919-395-3832, to discuss ways in which the office may be of service.

UNIVERSITY INFORMATION CENTER

The Information Center, located on the first floor of the University Union, provides a variety of information on campus, student and community activities. The Center also sells discount movie tickets, concert tickets, and is the repository for campus lost and found items.

POSTAL SERVICES

A U.S. Post Office, which provides all postal services, is in the University Union, UNCW provides each student with a post office box where all mail (except grades) is delivered. This box is the official means in which student receive University mail.

STUDENT GOVERNMENT ASSOCIATION

The core of student life at the University is the Student Government Association. Officers and at-large senators are elected by the student body, and other senators by classes within the student body.

The association is a democratic organization, permitting expression of student opinion, working for the best interest of the University and upholding a high standard of morals and conduct. It is responsible for the disbursement of half of the student activity fee. This money supports the Student Government Association in its objectives and campus activities. The association is a member of the North Carolina Association of Student Governments.

ASSOCIATION FOR CAMPUS ENTERTAINMENT (ACE)

The Association for Campus Entertainment coordinates the various student-produced events on campus. It provides a diversified schedule of programs, activities, and events that promote and provide opportunities for educational, social, recreational, and cultural growth for students and the campus community. ACE is comprised of the following committees: Fine Arts/Lecture, Film-Video, Concert, Coffeehouse, Minority Arts, and Special Events. The board is a member of the National Association for Campus Activities.

STUDENT ORGANIZATIONS

A variety of social, academic, and service organizations enhance student life at UNCW. National sororities and fraternities are established on the campus to recognize students for their leadership and service activities. Several departments in the University have locally and nationally organized groups to stimulate interest in specific areas and to develop professional attitudes. Students are encourage to contact the Office of Student Activities for specific information relative to a student organization.

PUBLICATIONS

The Seahawk, the student newspaper, is published weekly. Its staff is composed entirely of students.

The Fledgling, the student-produced yearbook, contains the usual features of a college annual.

The Atlantis, a literary magazine, is published by students each semester.

The Channel Marker is a calendar published monthly by the Student Activities Office to provide information regarding the dates and times of campus events and activities.

The Student Handbook and Code of Student Life is the primary source of information regarding University regulations and campus life.

ATHLETICS

The University holds membership in the National Collegiate Athletic Association and the Colonial Athletic Association.

Varsity intercollegiate teams are fielded for men in basketball, cross country, baseball, golf, soccer, tennis, swimming, and water polo. Varsity intercollegiate teams for women are fielded in basketball, softball, tennis, volleyball, swimming, golf, and cross county.

In addition, an intramural sports program is provided for the student body. The program is based on both a competitive and recreational basis, and participation is voluntary.

PERFORMING ENSEMBLES IN MUSIC

Membership is open to any student who has had instrumental or vocal experience, with the approval of the director of the particular ensemble. Any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit. Participation in either a vocal or an instrumental organization is required of all music majors.

Instrumental Ensembles

The UNCW Wind Ensembles is organized each semester to provide instrumental music experience for those students who desire it. The Wind Ensemble presents at least two concerts per year.

The UNCW Jazz Ensembles perform several concerts on and off campus each semester and perform an annual guest artist spring concert. Development of performance in the jazz idiom is stressed. These groups are open to any student who has had instrumental experience and the approval of the instructor. Auditions for each group are held at the beginning of each semester. The Wilmington Symphony Orchestra, Inc., rehearses on campus and UNCW students may enroll and receive credit for participating in this group.

Faculty, student and senior recitals are presented free of charge and are open to the public as well as to all students. The music division also maintains an Electronic Music Studio.

VOCAL ENSEMBLES

The University of North Carolina at Wilmington Concert Choir is organized each semester to provide vocal musical experience for those students who desire it. Membership is open to any student in the University, with the approval of the director, and any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit.

The University Concert Choir and small ensemble, The Chamber Singers, regularly provide music for University functions, appear on radio and television, and act as ambassadors from the University at a wide spectrum of community functions.

The UNCW Concert Choir's yearly activities have included at least two on-campus concerts and an extensive tour during the spring holidays. On occasion the choir has participated in large, joint stage productions of opera and musical comedies with the drama division.

THE UNIVERSITY THEATRE

The University Theatre is a student-oriented theatre dedicated to the continuing development of all theatre practitioners. It strives to produce a total theatrical experience to support the educational, creative, and recreational potential of a campus-based theatre.

Two major productions are presented each semester, with student productions presented on demand. Participation is not limited to dramatic art students, but is open to all University personnel and community residents.

UNIVERSITY READERS THEATRE

The University Readers Theatre provides students with an opportunity to participate in both the performance and technical production of a readers theatre script. Students attend open audition and may take part in the reading, publicity, lighting, set design and managing of the show.

One major production is usually presented each semester. During semesters when the readers theatre course is offered, class members of that course will comprise the University

Readers Theatre troupe. Interested students may inquire further at the Creative Arts Department.

FORENSICS TEAM

The University Forensics Team participates in a number of tournaments each year in addition to hosting the annual Blockade Runner Invitational Tournament on the UNCW campus. Students gain experience in public speaking, interpretation, research and argumentation. Membership is open to all students.

ART EXHIBITIONS

Monthly exhibitions of painting, sculpture and the graphic arts are held in the gallery-lobby of Kenan Hall. Student art is often featured. All exhibitions are open to the public without charge.

HONOR SOCIETIES AND AWARDS

THE HONOR SOCIETY OF PHI KAPPA PHI

Phi Kappa Phi is an honor society recognizing excellence of scholarship in all academic disciplines. A member of the association of College Honor Societies, it was founded at the University of Maine at Orona in 1897 and numbers about 250 chapters nationwide. Chapter Number 222 at The University of North Carolina at Wilmington was chartered on May 1, 1980. Seniors and second semester juniors are elected to membership based on integrity of character and class standing in the upper 5% for juniors or upper 10 % for seniors.

PHI ETA SIGMA NATIONAL HONOR SOCIETY

Phi Eta Sigma is a national college scholastic honor society for freshmen. A member of the Association of College Honor Societies, it was founded at the University of Illinois on March 22, 1923. The University of North Carolina at Wilmington Chapter of Phi Eta Sigma was chartered on March 17, 1979.

The goal of Phi Eta Sigma is to encourage and reward high scholastic attainment among freshmen. At the close of their first academic year freshmen are eligible for membership if they have a cumulative grade-point average of 3.5 or better with no grade lower than "C" on thirty hours or more course work at UNCW.

HOGGARD MEDAL FOR ACHIEVEMENT

A medal, presented through the generosity of the late Dr. John T. Hoggard, is awarded annually to the graduating senior who, in the opinion of the faculty, has shown the most improvement during his or her years at the University. The medal is presented each year at commencement.

ALUMNI ASSOCIATION SCHOLASTIC ACHIEVEMENT AWARD

The Alumni Association of The University of North Carolina at Wilmington each year at commencement presents an award to the senior who has attained the highest academic average in the graduating class.

ADRIAN D. HURST AWARD

Established by Adrian D. Hurst, emeritus professor of mathematics, this award recognizes a UNCW junior or senior math major who has achieved the highest overall academic grade point average. The award is presented each spring in the form of a plaque.

BIOLOGICAL SCIENCES ACHIEVEMENT AWARD

This award was established by the faculty of the Department of Biological Sciences to honor annually the graduating senior biology major who has achieved the highest academic standing. The recipient is identified on a permanent plaque in Friday Hall.

THE WALTER SCHMID PHYSICS AWARD

This award has been established in honor of the late Walter Schmid, engineer and inventor, to reward a senior bachelor of science physics major for excellence in physics. The award consists of an engraved plaque and a physics encyclopedia.

WHO'S WHO AMONG STUDENTS IN AMERICAN UNIVERSITIES AND COLLEGES

The University of North Carolina at Wilmington participates in this national organization which lists in its annual directory outstanding campus leaders. Selection of the candidates is made by a nominating committee composed of faculty, administration and students.

ACADEMIC REGULATIONS

ACADEMIC REGULATIONS

ORIENTATION

All new students are required to attend an orientation program prior to the beginning of fall and spring semesters. Its purpose is to acquaint students with opportunities and services at the University and to provide information needed to register for classes. Students are notified by mail of the time to report for the activities involved.

All freshmen, including transfer freshmen (less than 24 semester hours) are assigned to the General College for advising purposes. All other students are assigned for advising to an academic department or professional school. Unclassified students may receive advising assistance in the Advising Center.

REGISTRATION

Registration is limited to the time period specified in the University calendar of events and other days as announced by the Registrar's Office. Classes may not be added after the last day of registration. Students may take 12 to 18 hours without restriction. Students who have a cumulative quality point average of 3.5 may be allowed, with special permission of the appropriate dean, to carry a maximum of 21 semester hours.

PREREGISTRATION

Preregistration for students currently enrolled is held each semester. Students who complete preregistration and pay fees by the designated date are registered except in the event that they are declared academically ineligible at the end of the preceding semester.

TRANSFER OF CREDIT

Students transferring from a two-year institution may receive up to 62 semester hours of academic credit from all institutions attended. Correspondence courses (15 s.h. maximum), advanced placement, CLEP credit and military credit will be included in this total.

Students transferring from a four-year institution may receive up to a maximum of 94 semester hours from all institutions attended. Correspondence courses (15 s.h. maximum), advanced placement, CLEP credit and military service credit will also be included in this total.

Credit earned in another institution with a grade of "C" or better is accepted by the University if the work transferred is comparable to offerings of The University of North Carolina at Wilmington. Hours attempted and quality points earned at other institutions are not used in computing grade point averages except in the case of students applying to enter the teacher education program, the nursing program and of seniors graduating with honors and/or distinction.

ADVANCED PLACEMENT

The University of North Carolina at Wilmington participates in the advanced placement programs of the College Entrance Examination Board. A brochure listing the examinations, required minimum scores, course equivalents, and credits awarded is available through the Registrar's Office or the Office of Admissions. A freshman who scores 3 or above on the Advanced Placement test will receive appropriate college credit and advanced placement. Students taking Advanced Placement tests should have the score reports sent to the Registrar's Office for evaluation concerning placement and credit. Individual departments have determined the specific courses for which credit will be given.

Students who are talented and well prepared may also receive credit for a variety of courses by achieving a passing score on one of the College-Level Examination Program (CLEP) tests. Tests are offered and can be registered for biannually at the Student Development Center.

Students who have been exempted with credit from courses at an accredited college or university may be exempted with credit from appropriate courses at The University of North Carolina at Wilmington, as outlined in the test brochure. When the exemption is based on a test result, the student should have a copy of the score report sent to the Office of Admissions. In those cases in which a student has demonstrated knowledge of a particular field by more advanced course work, exemptions may be granted on an individual basis by the appropriate department chairman.

ACADEMIC HONOR CODE

The University of North Carolina at Wilmington is committed to the proposition that the pursuit of truth requires the presence of honesty among all involved. It is therefore this institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the University community are encouraged to report occurrences of dishonesty, honesty is principally the responsibility of each individual.

Academic dishonesty takes many forms, from blatant acts of cheating, stealing, or similar misdeeds to the more subtle forms of plagiarism, all of which are totally out of place in an institution of higher learning. Reporting and adjudication procedures have been developed to enforce the policy of academic integrity, to ensure justice, and to protect individual rights. Complete details may be found in the current *Student Handbook and Code of Student Life* and in the *Faculty Handbook.*

GRADES AND REPORTS

The University of North Carolina at Wilmington uses the quality point system and semester hour credit for calculating student achievement. Grade symbols used are: A-excellent, B-good, C-average, D-passing, F-failure, I-incomplete, W-withdrew.

Quality points are assigned as follows: 4 for a grade of "A", 3 for a grade of "B", 2 for a grade of "C", 1 for a grade of "D". No quality points are given for a grade on "I", "F", or "W". The quality point ratio is determined by dividing the accumulated number of quality points earned by the accumulated number of semester hours attempted. Hours attempted for which a grade of "I" or "F" has been assigned must be included in this calculation.

At the discretion of the instructor, a student may be given a grade of incomplete when the work in the course has not been completed for reasons beyond the control of the student. All incomplete grades must be removed according to a deadline established by the instructor, not to exceed one calendar year from the end of the semester in which the incomplete was given; otherwise the "I" becomes "F."

Grade reports are mailed to the student at the end of each semester.

CHANGE OF MAJOR

With one exception, all requests for a change of major must be completed in the General College Advising Center. The only exception is for those students changing from one department in a professional school to another department in the same school. These requests must be completed in the office of the dean of that school.

DEAN'S LIST

To be included in the Dean's List at the close of each semester, students must meet one of the following criteria:

(a) Students carrying 12-14 hours must earn a quality point average of 3.5 or better with no grade less than B.

(b) Students carrying 15 hours or more must earn a quality point average of 3.2 or better with no grade less than B.

Students carrying 11 hours or fewer are not eligible for the Dean's List.

WITHDRAWAL POLICY FOR UNDERGRADUATE STUDENTS

A student is allowed to withdraw from the University or from individual courses through the first week of the semester without having a grade entered on the academic record. Inclusive of the second through the sixth week of the semester, any student who withdraws from the University or from individual courses will receive a grade of "W." A grade of "W" will not affect the student's grade point average. Beginning with the seventh week of the semester, a grade of "F" will be assigned for each course withdrawal.

To withdraw from an individual class or classes, the student must submit a Schedule Revision Form(s) to the Registrar's Office prior to the last day for withdrawal as indicated in the University Calendar of Events. To withdraw from all classes , the student must process an official Withdrawal Form through the Dean of Students Office. If the student is unable to appear in person to withdraw, written notice must be sent to the Dean of Students Office.

Should extenuating circumstances warrant, the grade of "F" assigned for course withdrawal may be changed to a "W." This determination will be made by the dean of the school or college in which the student is enrolled. It is the student's responsibility to initiate the appeal. The decision of the dean is final and must be rendered prior to the end of the semester in which the withdrawal occurred.

AUDITING

The auditing of courses without credit is permitted by special permission of the registrar and of the instructor involved. Individuals not regularly enrolled as students in the University who wish to audit courses will be classified as special students and will be required to pay regular tuition and fees. University students in regular status will be permitted to audit courses and must pay the same tuition and fees required for credit courses.

REPEATING OF COURSES

Students who receive a grade of "C" or better in a course may not repeat the course but may audit without credit.

Students who receive a grade of "D" in a course taken at UNCW may, with the permission of their academic advisor and the appropriate academic dean, repeat the course once at UNCW and receive the grade given for the second attempt. Although no additional credit in hours earned toward graduation will be granted, the original grade will not be used in determining the grade point average of the student. The original grade, however, will remain on the student's permanent academic record. This policy is effective beginning with the Fall semester, 1985.

Students who receive a grade of "F" in a course taken at UNCW may, with the permission of their academic adviser and the appropriate academic dean, repeat the course once at UNCW and receive the hours credit and the grade. The original grade will remain on the

student's permanent academic record. This policy is effective beginning with the Fall semester, 1985.

Students who receive a grade of "D" or "F" in a course taken at UNCW may, with the permission of their academic adviser and the approproate academic dean, repeat the course more than once at UNCW. However, the credit hours of the course and the grade received will be included in determining the grade point average of the student each time the course is repeated.

Course repeat approval forms are available in the Registrar's Office. Students must complete this form and have it approved by the academic advisor and the appropriate academic dean before repeating a course.

OFF-CAMPUS COURSES

Students who enroll in off-campus courses (extension, correspondence, or summer school) and wish to apply credit in these courses toward a degree at The University of North Carolina at Wilmington must obtain written approval of the advisor, the department chairman, and the appropriate dean before registering for the course. This permission must be on file in the Registrar's Office prior to leaving campus.

GRADE APPEAL PROCEDURE

Any student considering a grade appeal should understand that each faculty member has the academic freedom and responsibility to determine grades according to any method chosen by the faculty member which is professionally acceptable, communicated to everyone in the class, and applied to all students equally. However, prejudiced or capricious academic evaluation by a faculty member is a violation of a student's rights and is the valid ground for a grade appeal.

Any student who contests a course grade shall first attempt to resolve the matter with the instructor involved. Failing to reach a satisfactory resolution, the student may appeal the grade in accordance with the procedures outlined below. These procedures are not to be used in cases involving student academic dishonesty. An appeal must be made not later than the last day of the next succeeding regular semester.

1. The student shall present the appeal in writing to the chairman of the department within which the contested grade was awarded. The written statement shall limit itself to citations of evidence pertaining to the valid ground for the appeal. By conferring with the student and the instructor, the chairman will seek resolution by mutual agreement.

2. Failing such resolution the department chairman shall transmit the written appeal to the appropriate dean who will convene the Grade Appeals Committee.

3. The Grade Appeals Committee shall consist of the convening dean and five faculty members appointed by the dean. If the committee affirms the instructor's decision, the dean will notify in writing the faculty member, the student, and the department chairman as appropriate. If the committee supports the student's appeal, it shall prescribe the method by which the student will be reevaluated. The grade resulting from the prescribed reevaluation is final and may not be further appealed.

CLASS ATTENDANCE

Students are expected to be present at all regular class meetings and examinations for the courses in which they are registered. All faculty members are responsible for setting policy concerning the role of attendance in determining grades for their classes. It is the responsibility of the students to learn and comply with the policies set for each class in which they are registered.

FINAL EXAMINATION POLICY

University policy requires the scheduling of final examinations. Under this policy, the final examination schedule provides a three-hour period for each examination and allows a maximum of three examinations per day. The length of the final examination, up to a maximum of three hours, is at the discretion of the instructor.

The final examination schedule is published at the beginning of each semester. Courses offered during the day have final examinations during the day (two per day). Night courses have final examination at night (one per night).

A student who is scheduled to take three final examinations in one calendar day may have one rescheduled by notifying the three instructors and the appropriate deans of this desire at least two weeks before the beginning of the final examination period. It will be the responsibility of the three instructors, working with the student, to reschedule one of the examinations and to so inform the student and the appropriate deans at least one week before the beginning of the final examination period.

Rescheduling of a final examination for an entire class may be done only with the approval of the appropriate dean.

CLASSIFICATION OF STUDENTS

Students are classified as freshmen, sophomores, juniors, and seniors. Semester hours passed are used to determine these classifications. In order to graduate in eight semesters, a student must average 15 to 16 hours per semester.

The required number of hours passed for each classification is as follows:

Less than 27 semester hours credit - Freshman
From 27-58 semester hours credit - Sophomore
From 59-88 semester hours credit - Junior
More than 88 semester hours credit - Senior

Retention, Dismissal and Readmission

The University of North Carolina at Wilmington both encourages and requires scholarship. In order to remain at the University, all students must meet the quality point requirements as outlined below.

RETENTION CHART

Total Hours Attempted	Required Quality Point Average for Eligibility To Continue in the University
6-26	1.2
27-58	1.5
59-88	1.8
89 or more	2.0

Transfer students are placed in the above retention chart based on total hours transferred from all institutions attended. Transfer students' quality point averages are computed only on work attempted through The University of North Carolina at Wilmington.

Students who do no meet the minimum quality point requirement for retention at the conclusion of the spring semester will be declared ineligible. These students will be allowed to make up deficiencies during this University's summer sessions which immediately follow

the spring semester in which they were declared ineligible **and will lose their preregistration for the fall semester**. If such deficiencies are not removed in this manner, students will be dismissed from the University for one semester. Such students may reenroll for any subsequent semester if space is available. Applications for reenrollment are available in the Admissions Office and should be filed as early as possible to insure acceptance. If accepted, students attend on a probationary basis and must prove themselves by meeting the required quality point average as outlined in the retention chart. However, reenrolled students who make a 2.0 average or better during the first semester after returning, but who fail to reduce quality point deficiencies to the required level, will be granted one additional semester in which to meet this requirement.

A second academic dismissal is final unless eligibility for continued residence or for readmission is restored by completion of sufficient work during the summer sessions at the University of North Carolina at Wilmington.

Students may, through appropriate administrative review of mitigating circumstances, be authorized to continue with their studies on a conditional basis. Written permission must be obtained from the appropriate dean prior to the beginning of the semester in which such students wish to enroll.

Full-time students who fail to pass at least three hours during any semester are subject to academic dismissal for one semester, regardless of quality point standing. Freshmen, other than transfer students, must earn at least three semester hours of credit the first semester. Students who fail to meet this requirement will be subject to academic dismissal. These students must also meet the minimum quality point ratio on hours attempted listed in the retention table if they wish to continue in the University.

HONORS PROGRAM

A student who has a quality point average of 3.2 or better (including all transfer courses attempted) over the first two and one-half years of college work (74 semester hours), who has completed at least 30 semester hours work with a 3.2 or better quality point average at The University of North Carolina at Wilmington, and who is recommended by the chairman of the area of concentration is eligible for admission to the Honors Program. This program involves independent study in the area of concentration, a paper reporting the results of the study, and an oral examination. Honors work is not intended to replace any specifically required courses.

A student who enters the Honors Program will be required to complete six semester hours of honors work in the field of concentration during the last three semesters, with a maximum of three semester hours credit in any one semester. The Honors Program may be entered either at the beginning of the second semester of the junior year (on completion of 74 semester hours) or at the beginning of the first semester of the senior year.

In order to graduate with honors, a student must successfully complete the program and have a 3.2 quality point average over all college work at the time of graduation. A student who does not retain an overall average of 3.2, however, may still receive credit for the honors project.

REQUIREMENTS FOR GRADUATION

Students may qualify for the bachelor's degree by completing successfully (1) the basic studies requirements, (2) an approved course of study in an area of concentration, (3) a total of 124 semester hours of credit, and (4) a minimum quality point average of 2.0. The final 30 semester hours of course credit, including the final 15 semester hours in the concentration, must be completed at The University of North Carolina at Wilmington.

Graduation will be certified at the end of the term in which all academic requirements are complete. Upon completion of all requirements, the student will receive either the Bachelor of Arts or the Bachelor of Science Degree.

Application for graduation must be filed in the Office of the Registrar on or before the dates specified in the University calendar on page 5. The Graduation fee is listed on page 28.

In advising and registering students, the deans, the registrar and faculty advisors try to make certain that every student who intends to graduate from the University registers for those courses which are required for a degree. **The student, however, must assume the final responsibility for meeting the graduation requirements set forth in the University catalogue.**

A student who enrolls at The University of North Carolina at Wilmington during any academic year and who earns credit for work done during the year may always graduate under the provisions of the entering catalogue or under any subsequent catalogue, provided all graduation requirements are completed within six years of the expiration date of the catalogue chosen.

REQUIREMENTS FOR A DOUBLE CONCENTRATION

A student may elect to concentrate in two separate disciplines with the permission of the chairman of each of the departments and on the condition that the student meets all requirements for each concentration. The student who completes requirements for more than one concentration will receive only one degree, but at the time of the initial graduation the record will indicate both concentrations when the completed requirements lead to the same baccalaureate degree.

A student who returns to the University after the initial graduation to complete the requirements for a second concentration may have the additional area of concentration added to the official record upon written notification from the department chairman that all departmental requirements have been satisfactorily met.

REQUIREMENTS FOR A SECOND BACCALAUREATE DEGREE

A student with a bachelor's degree from UNCW may receive a second baccalaureate degree if it is a different degree and a different concentration by fulfilling the following requirements:

(1) The student must meet all the requirements for the second degree and concentration.

(2) The student must complete a minimum of 30 hours in residence beyond the requirements for the first degree.

DEGREES WITH DISTINCTION

Three degrees with distinction are granted to graduating students based on all work attempted in meeting requirements for the degree as follows:

Cum Laude for an overall average of 3.50

Magna Cum Laude for an overall average of 3.70

Summa Cum Laude for an overall average of 3.90

Degrees with distinction are granted to transfer students under the following conditions:

(1) The student must have the required overall average on all work attempted (including all transfer courses attempted).

(2) The student must have the required average on work attempted at The University of North Carolina at Wilmington.

Students who complete the Honors Program satisfactorily will be graduated "With Honors in" the discipline in which the special work is undertaken.

TRANSCRIPTS

Transcripts are issued to students at the cost of $1.00 each. All requests for transcripts must be in writing.

INDEBTEDNESS

All indebtedness to the University must be satisfactorily settled before a diploma or transcript of record will be issued.

CHANGE OF NAME AND ADDRESS

It is the obligation of every student to notify the Office of the Registrar of any change in name or permanent mailing address.

DEGREE REQUIREMENTS AND COURSE DESCRIPTIONS

ACADEMIC PROGRAMS

The University of North Carolina at Wilmington offers four-year programs leading to the Bachelor of Arts and the Bachelor of Science degrees and graduate programs leading to the Master of Arts, Master of Business Administration, Master of Education, and Master of Science degrees. Professional undergraduate programs include those offered in the Cameron School of Business Administration, the School of Education, the School of Nursing and the Medical Technology program in the College of Arts and Sciences. Preprofessional programs are offered in agriculture and forestry, dentistry, engineering, law, medicine, optometry, pharmacy, physical therapy, and veterinary medicine. The University has special programs in marine sciences and environmental studies.

DEGREES OFFERED

Areas of Concentration for the Bachelor of Arts Degree

Anthropology
Biology
Chemistry
Creative Arts
  Art
  Drama
Economics
Elementary Education
English
Environmental Studies
French
Geography
Geology
History
Mathematics
Middle Grades Education
Music
Parks and Recreation Management
Philosophy and Religion
Physical Education
Physics
Political Science
Psychology
Social Science
Sociology
Spanish
Special Education
Speech Communication

Areas of Concentration for the Bachelor of Science Degree

Accountancy
Biology
Business Management
Chemistry
Computer Science
Economics
Finance
Geology
Marine Biology
Marketing
Mathematics
Medical Technology
Nursing
Physics

Areas of Concentration for the Master of Arts Degree

English
History
Mathematics

Area of Concentration for the Master of Business Administration Degree

Business Management and Administration

Areas of Concentration for the Master of Arts in Teaching Degree

Biology
Chemistry
English
History
Mathematics

Areas of Concentration for the Master of Education Degree

Elementary Education
Educational Administration and Supervision
Reading Education
Special Education

Areas of Concentration for the Master of Science Degree

Biology
Chemistry
Geology
Marine Biology
Mathematics

THE GENERAL COLLEGE

The General College consists of the first year of study during which students are expected to work toward fulfilling the University's basic studies requirements as outlined in this University catalogue. All freshmen are enrolled in the General College. Upon entering the University, many students do not know which major they will pursue. Courses prerequisite to a major, combined with elective courses, provide the opportunity to explore several different areas of academic interest. Students who have already chosen their major or professional program will still want to make satisfactory progress toward completing basic studies requirements combined with other required courses in their chosen field before transferring from the General College toward the end of the freshman year, at which time all freshmen must declare a major. Upon declaration of a major, all students are then assigned an advisor in the designated department or professional school. Finally, students with admissions deficiencies are expected to begin remedying these deficiencies while still enrolled in the General College.

The General College Advising Program

Each student in the General College receives the personal assistance of a faculty advisor in selecting courses, maintaining required scholastic standards, and planning a complete General College educational program. Every effort is made to place students in classes appropriate to their level of preparation and achievement.

The General College Advising Program has 60 faculty advisors and is responsible for advising all students in the General College. Advising assistance is available in the General College Advising Center from 8 a.m. - 5 p.m., Monday through Friday. Advisors may be seen either on an appointment or a drop-in basis. Advisees are expected to see their advisors before preregistration/registration and before dropping or adding courses or before withdrawing from the University.

Admission to the College of Arts & Sciences

Students wishing to declare a major within the College of Arts & Sciences will request to have their records transferred to the appropriate department toward the end of the second semester of the freshman year.

Admission to the Professional Schools

Students wishing to declare a major within a professional school will request to have their records transferred to the appropriate school toward the end of the second semester of their freshman year. These students will then be assigned to that school for pre-professional advising.

Students seeking admission to the Cameron School of Business Administration or the School of Education normally submit their applications to the appropriate school immedi-

ately upon completion of the third semester of study, provided the minimal requirements as stated in the University catalogue have been met at the time of application.

Students seeking admission to the School of Nursing must submit applications to the Office of the Dean, School of Nursing. Application forms and deadline dates are available through the School of Nursing.

I. Requirements for Admission to the Cameron School of Business Administration

1. Each applicant for admission must have completed a minimum of 44 semester hours with a cumulative grade point average (GPA) of 2.0 or better (4.0 scale).

2. Bachelor of Science:
   The following courses are required for admission to the Cameron School of Business Administration:

   Must be completed:

ENG 101-102	English Composition I and II
MAT 111 or 115	Precalculus I or Elem Analysis
ACG 201	Financial Accounting
ECN 221	Principles of Economics-Micro

   Must be completed or enrolled:

ACG 203	Managerial Accounting
or ACG 204	Intermediate Accounting I
ECN 222	Principles of Economics-Macro
PDS 217	Statistical Analysis for Business
MAT 151 or 161	Basic Calculus w/Applications I

   Bachelor of Arts:
   Same as above except that students studying for the Bachelor of Arts degree are not required to complete ACG 201, or ACG 203 or ACG 204, and may substitute STT 205 for PDS 217.

3. Students may not enroll in restricted courses nor enroll in more that 15 semester hours within the School beyond preadmission courses without being formally admitted to the School.

II. Requirements for Admission to the School of Education and the Teacher Education Program

1. Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.

2. Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.

3. Completion of four semesters or two academic years of full time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale.

4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

III. Requirements for Admission to the School of Nursing-Bachelor of Science Degree Program

1. Minimum overall cumulative GPA of 2.5 or better (on a 4.0 scale) is required for all course work completed at the college or university level.

2. Minimum grade of "C" in each of the following courses or their equivalent:

BIO 240 - 241	Human Anatomy & Physiology (2 semesters)
CHM 115	Fundamentals of General Chemistry
CHM 215	Organic/Biological Chemistry
BIO 246	Microbiology of Human Diseases
MAT 111	Precalculus I

3. Completion of all courses prerequisite to the nursing major. (Any foreign language deficiency must have been removed prior to admission to the program).

4. Evidence of satisfactory high school completion or equivalent.

5. Satisfactory physical and emotional health.

Admission Requirements-RN Access Program

In addition to the above requirements, applicants to the RN Access program need:

1. One year nursing practice.
2. A current license to practice as a registered nurse in North Carolina.

BASIC STUDIES REQUIREMENTS

Basic Studies at The University of North Carolina at Wilmington is defined as the acquisition of essential skills and an introduction to the broad spectrum of studies which are basic to our intellectual and cultural heritage. The program is designed to develop skills in comprehension, composition, reasoning and analysis; to introduce students to the structure, methodology and knowledge of academic disciplines; and to address important human concerns from disciplinary or interdisciplinary perspectives.

To qualify for the bachelor's degree from The University of North Carolina at Wilmington, all students must acquire a total of forty-five (45) semester hours less exemptions.

A. English Composition (6 hours)
Required: English 101 and 102 (3-3)

B. Physical Education (2 hours)
Required: Physical Education 101 (2)

C. Humanities (9-15 hours)
Required: A minimum of 9 and a maximum of 15 hours elected from at least two of the following areas:
- Communication 105
- English 110, 207, 208, 210, 211, 212, 219, 230, 250
- History 101, 102, 201, 202, 237, 261, 273, 275
- Foreign Languages and Literatures
  - French 101, 102, 201, 202, 305, 311, 312, 321, 322
  - German 101, 102, 201, 202, 305, 321, 322, 350
  - Spanish 101, 102, 201, 202, 209, 210, 211, 212, 305, 311, 312, 321, 322
  - Portuguese 101, 102, 201, 202
- Philosophy and Religion 101, 103, 110, 115, 201, 202, 205, 215, 230, 232, 235, 236, 242

D. Creative Arts (3-6 hours)
Required: A minimum of three and maximum of six hours elected from the following areas
Art 101, 102, 111, 112, 201, 202, 204, 221, 241, 242
Communication 116
Drama 221, 225
Music 085*, 086*,087*, 105, 115, 116, 117, 118
*(Basic studies credit from Music 085, 086, and 087 may not exceed a total of three semester hours.)

E. Natural and Mathematical Sciences (10-15 hours)
Required: A minimum of 10 and maximum of 15 hours from the two areas of natural sciences and mathematical sciences as described below:

1. Natural Sciences (4-12 hours)
Required: A minimum of 4 and maximum of 12 hours, including at least one laboratory science course (starred below), elected from the following:
- Anthropology 210
- Biology 105*, 205*, 206*, 207, 235, 236, 237, 238, 240*, 241*
- Chemistry 101*, 102*, 103*, 105, 106*, 115*, 215*
- Geography 130*, 230
- Geology 101*, 102*, 120, 150
- Physical Education 216*, 217

Physics 101*, 102*, 105*, 201*, 202*, 260

2. Mathematical Sciences (3-8 hours)
   Required: One of the following courses:
   Mathematics 101, 111, 112, 115, 141, 151, 161
   Additional credit may be earned by electing from the following:
   Computer Science 111
   Mathematics 102, 112, 142, 151, 152, 161, 162, 275
   Philosophy and Religion 218
   Statistics 205, 210, 215

F. Social and Behavioral Sciences (3-9 hours)
   Required: A minimum of three and a maximum of nine hours elected from the following:
   Anthropology 105, 205, (Sociology 205), 206, 207
   Criminal Justice 201
   Economics 125, 221, 222
   Geography 110, 140
   Political Science 101, 102, 111, 202, 206, 207
   Psychology 105, 145, 220, 323
   Social Work 235, 245
   Sociology 105, 110, 205 (Anthropology 205) 215, 225

Waiver of Requirements

English: Students who have not qualified for advanced placement but who because of special circumstances may have writing competencies equal or superior to those required in English 101 or 102 may, at the discretion of the chairman of the Department of English, take a waiver examination. An acceptable score will waive either or both requirements. This waiver does not grant academic credit.

Mathematics: Students who have not qualified for advanced placement but who may have competencies equal or superior to those required for successful completion of Mathematics 151 or 161 may, at the discretion of the chairman of the Department of Mathematical Sciences, take a waiver examination for either of these courses. An acceptable score on this exam waives the requirement that one of the introductory mathematics courses be taken. This waiver does not grant academic credit.

REQUIRED PHYSICAL EDUCATION

Through participation in the required physical education program, students should expect to develop an understanding of the role of life-long physical activity in enhancing the quality of one's life.

The University requires all students to complete with a passing grade Physical Education 101, Foundations of Physical Activity. Transfer students who have not had an equivalent course must also complete this requirement. Handicapped students are encouraged to participate to the fullest extent possible in physical education activities and are encouraged to consult with the chairman of the Department of Health, Physical Education, and Recreation concerning participation in these activities.

The University requires all students to provide information regarding their current health status on the Report of Medical History form available through the Admissions Office. Completion of this requirement is a prerequisite to:

1) enrollment in any physical education activity course,
2) participation in any intramural activity course,

3) utilization of the physical education facilities for recreational purposes.

Based on the information contained in this report, the student will be assigned to one of three categories listed below:

A. Unrestricted participation
B. Restricted participation
C. Temporarily restricted participation because of an injury or illness.

COURSE DESCRIPTIONS

All undergraduate courses offered in the College of Arts and Sciences, the Cameron School of Business Administration, the School of Education, and the School of Nursing are listed following the appropriate departmental degree requirements. Not all of the courses listed are offered within a single academic year. A listing of the courses offered during a given semester is printed in a Class Schedule Booklet, which is placed in each student's University mailbox before preregistration each semester.

PLEASE NOTE: A hyphen connecting courses (e.g., 201-202) indicates that the first course in the sequence must be satisfactorily completed prior to registration in the second course of the sequence. When course numbers are separated by a comma (e.g, 201,202), the first course is not necessarily prerequisite to those following. The semester hours credit for each course is indicated in parentheses following the course title.

TRIAL COURSES

Academic departments may offer special trial courses during the fall and spring semesters on a one-time basis without adding them to their regular departmental offerings. A second trial offering, if additional data are essential, must be within two regular semesters of the first. Numbers designating these special courses are 292 and 492. Descriptive information on trial courses does not appear in the catalogue, but is on file in the Office of the Registrar.

DIRECTED INDIVIDUAL STUDY

This course designated as 491 in each department involves investigation beyond what is offered in existing courses. To enroll in a Directed Individual Study, students must have an overall grade point average of at least 2.0 and the approval of 1) the faculty member who would direct the study, 2) the departmental chairman, and 3) the appropriate dean. Departmental criteria will include 1) the availability of the instructor (ordinarily instructors will not supervise more than six student credit hours of Directed Individual Study per semester), 2) the appropriateness of and need for the proposed study in the student's program, 3) the availability of library and other research resources, and 4) the feasibility of completion of the proposed study in the allotted time. Students are limited to nine credit hours of Directed Individual Study toward graduation requirements, not more than three of which can be outside the area of concentration.

294—494. International Study Courses (3-6) Academic departments in the College of Arts and Sciences may offer special international study courses during the regular semesters or summer sessions without adding them to their permanent curricula. These courses will include regular classroom assignments, lectures and discussions, travel and field work, and visits to historic and cultural sites. Study will take place outside the United States, usually in association with local universities. Numbers designating these courses are 294 and 494 and can be offered fcr 3-6 hours credit. A student may take up to two 294 courses or one 494 course, for a maximum of

12 credit hours. (Each course must be submitted on a "Proposal for Curriculum Change" form and approved by the College of Arts and Sciences Curriculum Committee and dean.

GENERAL COLLEGE COURSE

GCA 101. Freshman Seminar (1). An active application of tested academic strategies to current semester's course material. Course content includes test-taking and note-taking skills, comprehensive techniques, library use, guest lectures, study reading strategies, and verbal and written communication ability. One hour each week.

MILITARY SCIENCE CREDIT

Students are limited to thirteen credit hours of Military Science toward graduation requirements.

COLLEGE OF ARTS AND SCIENCES

Jo Ann M. Seiple, Acting Dean
Gary L. Faulkner, Assistant Dean
John L. Stokes, Assistant Dean
Charles R. Ward, Director of Science and Mathematics Education Center

The College of Arts and Sciences offers a variety of programs in the liberal arts leading to the Bachelor of Arts, Bachelor of Science, Master of Arts and Master of Science degrees. To implement these programs, the College provides instruction, research, and creative opportunities in the fine arts and humanities as well as in the natural, physical, and social sciences. The fifteen academic departments in the College provide courses of study in each of these areas, in addition to the interdisciplinary programs in social science and environmental studies, a professional program in medical technology, and pre-professional programs in agriculture and forestry, dentistry, engineering, law, medicine, optometry, pharmacy, physical therapy, and veterinary medicine.

Degree requirements for all undergraduate concentrations available in the College of Arts and Sciences are listed below by departments. Requirements for the graduate degrees are listed in the Graduate School section, while those for professional, preprofessional, and special programs are listed in those sections of this catalogue.

DEPARTMENTAL REQUIREMENTS

ANTHROPOLOGY

(See Sociology and Anthropology)

ARMY ROTC

(see Military Science)

ART

(See Creative Arts)

BIOLOGICAL SCIENCES

Dr. Sizemore, Chairman. Dr. Ballard, Dr. Biggs, Dr. Bolen, Dr. Cahoon, Dr. Clavijo, Dr. Dillaman, Dr.Dodd, Dr. Dunn, Dr. Fugler, Dr. George, Dr. Hackney, Dr. Hosier, Dr. Hulbert, Dr. Kapraun, Ms. Kendrick, Dr. Lindquist, Dr. Lundeen, Dr. McCrary, Dr. Merritt, Dr. Mintzes, Dr. Padgett, Dr. Parnell, Dr. Plyler, Dr. Roer, Dr. Roye, Dr. Shafer, Dr. Sieren, Dr. Webster.

Requirements for a concentration in Biology for the B.A. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. In addition to those requirements, there are three options described below, one of which a student must elect in order to complete the degree requirements.

Option 1.

Biology 495 and minimum of 25 hours chosen from courses numbered above 299, of which at least one course must be from each of the following three groups of courses: advanced botany, advanced zoology, molecular/cellular biology; Chemistry 101-102 with lab or 105 -106 - 102 with lab; a minimum of 16 hours chosen from the listed courses

in at least two of the following areas: Chemistry 211, 212, 235; Computer Science 105, 111, 121; Geology 101, 102, 150; Mathematics 151, 152, 161, 162, 261; Physics 101 or 105, 102, 201, 202, 260; Psychology 456, 457; Statistics 215. With the advanced approval of the faculty advisor and the department chairman, other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses above 299.

The option is a flexible program which can be designed by a student and an advisor to meet personal educational goals and interests which may or may not include graduate study; the program may be used to meet a set of specific requirements, for example, certification for teaching at the secondary school level.

Option 2.

Biology 335, 366, 475, 495; at least two of the following; Biology 356, 452, 454, 456, 457; a minimum of 10 hours chosen from Biology 315, 316, 345, or 355, 375, 466, 477, 491; Chemistry 101- 102 with lab or 105 - 106 - 102 with lab; minimum of 16 hours chosen from Chemistry 211, 212; Mathematics 111, 112; Geology 101, 102; Psychology 457; Statistics 215; Computer Science 105, 111. With the advanced approval of the faculty advisor and the department chairman, other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses above 299.

This option is designed for students interested in studying freshwater and terrestrial higher plants and animals and who will pursue graduate study and/or careers in such fields as systematics, ecology, fish and game management, and nature interpretation in parks and wilderness areas.

Option 3.

Biology 315, 335, with lab, 345, 347, or 465, 495; a minimum of 8 hours chosen from Biology 316, 371, 410, 425, 435, 440, 441, 477. Collateral requirements are Chemistry 101 and 102 with lab, 211 and 212 with lab, 235; Physics 101 and 102 with lab; Mathematics 151, 152. A "C" or better average on Biology courses above 299.

This option is designed for students who wish preprofessional training in medicine, dentistry, optometry, and other health care fields. The sequence of courses conforms to entrance requirements prescribed in publications of the Association of American Medical Colleges, the American Association of Dental Schools, and the council on Optometric Education of the American Optometric Association.

Requirements for concentration in Biology for the B.S. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. Biology 315 or 375 or 474, 335 with lab, 345 or 355 or 347 with lab, 366, 495, and a minimum of 8 additional hours in courses numbered above 299, one course each from two of the following three groups of courses: advanced botany, advanced zoology, molecular/cellular biology. Collateral requirements are Chemistry 101 - 102 with lab or 105 - 106 - 102 with lab, 211 - 212 with lab; Physics 101 - 102 or 201 - 202; Mathematics 151 and Statistics 215. Students planning to attend graduate school are urged to take Chemistry 235, Mathematics 152, Computer Science 111, 121, 125, 126, and French 201 - 202 or German 201 - 202. A "C" or better average on all Biology courses above 299. This degree program is designed for those students who plan to attend graduate school or seek employment in various fields of biological specialization.

Requirements for concentration in Marine Biology for the B.S. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. Biology 362, 366, 345 or 355 or 347 with or without lab; 315 or 316 or 335 with or without lab or 474; 495; a minimum of 10 hours selected from the following: 365

or 481, 446 or 472, 457, 458, 462, 468. Collateral requirements are Chemistry 101 - 102 with lab or 105 - 106 -102 with lab; Geology 150; Physics 101 - 102 or 201 - 202; Mathematics 111 - 112 or 115 - 151 or a higher sequence; a minimum of 4 semester hours chosen from Chemistry 211, 212, 235, 475; Computer Sciences 111, 121, 125; Geography 333; Geology 101, 231; Statistics 215. A "C" or better average on Biology courses above 299.

This degree program is designed for those students who plan to attend graduate school or seek employment in fields of biological specialization which are marine related.

For the purpose of satisfying degree requirements in Biology, the following are considered to be courses in

Advanced Botany: 355, 375, 446, 472, 474, 475, 477; Advanced Zoology: 315, 316, 345, 356, 365, 452, 454, 456, 457, 458, 462, 481; Cellular-Molecular Biology: 335, 347, 410, 425, 430, 435, 440, 465.

Requirements for Teacher Certification in Biology: In addition to completing the requirements for a degree in Biology or Marine Biology and the other requirements of the Teacher Education Program, the following courses are required for certification: Biology 315; 235 or 335 with or without lab; 345 or 347 with or without lab or 355; 366; 425; Geology 101 or 150; and Physics 101 or 105.

Biology Course Descriptions

BIO 105. Concepts of Modern Biology (4) An introduction to the diversity of life and the principles governing living systems, focusing on the role of man in the natural world. This course employs multi-media instructional materials and is designed for the nonbiology major. Three lecture hours and three laboratory/discussion hours each week.

BIO 108. Introduction to Medical Technology (1) A survey of medical laboratory technology as a career option. Explores the many disciplines encompassed by the profession including microbiology, chemistry, blood banking, and hematology as they apply to the medical diagnostic laboratory, as well as brief considerations of cytotechnology and histo-technology. The course includes a discussion of the nature and scope of necessary skills, opportunities for advancement, certification requirements, and visits to a hospital laboratory. One hour and fifteen minutes each week.

BIO 205, 206, 207, 208. Core courses for biology majors; must be completed within the first four semesters.

BIO 205. Introductory Biology: Plants (4) Classification, morphology, physiology, and ecology of seed plants with introductory survey of algae, fungi, bryophytes, and lower vascular plants. Three lecture and three laboratory hours each week.

BIO 206. Introductory Biology: Animals (4) Classification, morphology, physiology, and ecology of animals, including brief survey of major phyla and discussion of human body systems. Three lecture and three laboratory hours each week.

BIO 207. Introductory Biology: Cells (3) An introduction to the cell as the basic unit of life. Cell structure is integrated with such functions as the utilization of food energy, the expression of genetic potential, cell movement and reproduction. Three lecture hours each week.

BIO 208. Biological Literature Search Techniques (1) An introduction to primary literature resources in the biological sciences with emphasis on use of various abstracting and indexing publications. One hour each week.

BIO 216. (Physical Education 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three laboratory hours each week.

BIO 217. (Physical Education 217) Human Anatomy and Physiology II (3) The study of human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement. Three lecture hours each week.

BIO 225. Bacteriology (3) Prerequisite: Credit in Biology. Open only to nursing students. Bacteria and related organisms; laboratory work in common bacteriological techniques. Two lecture and three laboratory hours each week.

BIO 235, 236, 237, 238. Elective courses primarily for non-major students, emphasizing "man in the natural world;" two or more to be offered each semester.

BIO 235. Genetics in Human Affairs (3) A discussion of basic principles of genetics for non-majors or majors with the ultimate goal of developing an understanding of the relationship of genetics to the society of today and its possible influence on the future of man. A survey of current knowledge of the inheritance of human traits is included. Three lecture hours a week.

BIO 236. Biology of the Sea (3) An introduction to marine environments, the diversity of marine life and the role of man in the utilization of marine resources. Students will become acquainted with local marine habitats, including: salt marshes, sandy beaches, tidal flats and rocky shores. Three lecture hours each week.

BIO 237. Plants and Civilization (3) An introduction to the plant kingdom, the diversity, structure, and function of plant life, and the impact of plants on human culture, history, civilization and economics. Three lecture hours each week,

BIO 238. Microbes and Human Society (3) An introduction to the world of the microorganism, focusing on the diversity, structure and function of microbial life, and spread and control of disease-producing organisms, and the impact of these life forms on human culture, history, and civilization. Three hours each week.

BIO 240 - 241. Human Anatomy and Physiology (4-4) A comprehensive introduction to the anatomy and physiology of the human organism. Organ systems of the body are discussed individually and as parts of interacting groups, with emphasis on the processes which maintain an internal steady-state. Three lecture and three laboratory hours each week.

BIO 246. Microbiology of Human Diseases (4) Prerequisite: Biology 240. An introduction to the biology of microorganisms which affect humans. Emphasizes pathogenic and related microorganisms. The basic microbiological techniques needed to isolate, identify and control microorganisms will be covered. Three lecture and three laboratory hours each week.

BIO 315. Comparative Vertebrate Anatomy (4) Prerequisite: Biology 206. Comparative morphology and phylogenetic interrelationships of vertebrate animals; representative organisms dissected in laboratory. Three lecture and three laboratory hours each week.

BIO 316. Vertebrate Embryology (4) Prerequisite: Biology 206. Fundamental principles of embryonic development of vertebrate animals; frog, chick, and pig emphasized. Three lecture and three laboratory hours each week.

BIO 335. Genetics (3) Prerequisite: Core courses. Principles of Mendelian heredity, linkage, mutation, population genetics, and gene action. Three lecture hours each week.

BIOL 335-51. Genetics Laboratory (1) Prerequisite: Core Courses. Corequisite: Biology 335. Demonstration of basic heredity principles through study of Drosophila and other genetic systems. Three laboratory hours each week.

BIO 341. Clinical Calculations (1) Prerequisite: Junior status. Laboratory calculations specifically for Medical Technology majors, although it is open to other majors as well. Reviews basic chemical calculations and introduces the common mathematic applications in medical/biological laboratory. One hour each week.

BIO 345. Animal Physiology (4) Prerequisite: Biology 206, 207, and Chemistry 102. Comparative study of physiological processes in different organisms approached through study of tissues, organs, and systems. Three lecture and three laboratory hours each week.

BIO 347. Molecular Biology of the Cell (3) Prerequisite: Biology 207 and Chemistry 211-212. Chemical and physical properties of cells. Emphasis on molecular biology and experimental biological systems used to elucidate cellular function. Three lecture hours each week.

BIOL 347-51. Molecular Biology of Cell Laboratory (1) Prerequisite or corequisite: Biology 347. Experiments demonstrating basic phenomena underlying cellular function. Three laboratory hours each week.

BIO 349. (Physical Education 349) Physiology of Exercise and Sport (4) Prerequisite: Biology 215 or 345. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and two laboratory hours each week.

BIO 355. Plant Physiology (4) Prerequisite: Biology 205, 207, and Chemistry 102. A study of plant function at the molecular, cellular, and organismic levels. Emphasis placed on unique aspects of vascular plants. Topics include water relations, solute transport, photosynthesis, nitrogen metabolism, plant hormones, photocontrol of development, and stress physiology. Three lecture and three laboratory hours each week.

BIO 356. Vertebrate Natural History (4) Prerequisite: Biology 206. Identification, classification, and life histories of common vertebrate animals of eastern North Carolina with emphasis on field work. Two lecture and four laboratory hours each week.

BIO 362. Marine Biology (4) Prerequisite: Biology 205, 206. The coastal and oceanic biota and their relationships to the marine environment. Three lecture and three laboratory hours each week.

BIO 365. Invertebrate Zoology (4) Prerequisite: Biology 206. Invertebrate organisms with emphasis on structure, function, taxonomy, phylogeny, and life histories. Three lecture and three laboratory hours each week.

BIO 366 Ecology (4) Prerequisite: Core courses and upper level credit. Ecological principles pertaining to both plants and animals. Three lecture and three laboratory hours each week.

BIO 371. Human Fungal Diseases. (1) Prerequisite: Biology 205 or 215 or permission of instructor. An in-depth consideration of human mycotic diseases for medical technology, nursing and premedical students. Emphasis will be placed on etiology, predisposing conditions, clinical diagnosis, immunology, serology and therapy of most presently recognized human mycoses. One hour each week.

BIO 375. Plant Morphology (4) Prerequisite: Biology 205. Morphological survey of algae, fungi, bryophytes, lower vascular plants, and seed plants with emphasis on life histories, structure, and development. Three lecture and three laboratory hours each week.

BIO 410. (512) Electron Microscopy and Cell Ultrastructure (3) Prerequisite: Biology 347. A discussion of the general and specialized techniques of transmission and scanning electron microscopy and their application to the elucidation of the structure and function of cell organelles in plants and animals. Three lecture hours each week.

BIOL 410-51. (512-51) Electron Microscopy Laboratory (1) Corequisite: Biology 410 and permission of instructor. Techniques for fixing, embedding, and thin sectioning of tissues will be demonstrated. Students will prepare a material of choice for observation and analysis and examine the prepared material with the electron microscope. Three laboratory hours each week.

BIO 415. (520) Vertebrate Histology (4) Prerequisite: Core courses. An introduction to the cytology and morphology of vertebrate cells and tissues, including examination of the four major histological tissues: epithelium, connective tissue, muscle, and nerve. Other topics include the techniques and instrumentation of light microscopy and selected methods of sectioning, fixation, and staining of tissues. Student project required. Three lecture and three laboratory hours each week.

BIO 425. (524) Microbiology (4) Prerequisite: Core courses. A study of nonpathogenic and pathogenic microorganisms with emphasis on the biology of viruses and bacteria. Laboratory sessions will include the techniques required to identify, culture and stain selected microorganisms. Three lecture and three laboratory hours each week.

BIO 430. (529) (Anthropology 430) Evolutionary Biology (3) Prerequisite: Biology 335. Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature. Three lecture hours each week.

BIO 435. (535) Molecular Genetics (3) Prerequisite: Chemistry 102 and Biology 335 and 347 or 465. An overview of current understanding of the nature, function, and control of genes. Topics include the nature of genetic information; the sequence organization and packaging of the eucaryotic genome; DNA, RNA, and protein synthesis; recombinant DNA technology; RNA processing; transposable genetic elements; and antibody diversity, synthesis, and function. Three lecture hours each week.

BIO 436. (536) Recombinant DNA Techniques (2) Prerequisite: One of the following: Biology 335, 347, or 465. Basic principles and techniques of gene cloning using three major types of cloning vectors; lambda phage, plasmids, and the single stranded DNA phage M13. Provides hands-on experience in recombinant DNA methology. One lecture and four laboratory hours each week.

BIO 440. (544) Developmental Biology (4) Prerequisite: Core courses. Concepts of mechanism and control in development. Topics include cell lineage determination, differential gene activity, cell recognition phenomena, hormones, and environmental control of development. Plant and animal systems studied in modern research literature will be discussed. Three lecture and three laboratory hours each week.

BIO 441. Introduction to Immunology (1) Prerequisite or corequisite: Chemistry 211. A general survey of modern immunological principles. One lecture hour each week.

BIO 445. (545) Marine Physiology (4) Prerequisite: Biology 365. Introduction to physiological system characteristic of marine vertebrates and invertebrates. Emphasis on the mechanisms underlying osmoregulation, respiration, temperature regulation, digestion, and movement. Three lecture and three laboratory hours each week.

BIO 446. (571) Phycology (4) Prerequisite: Biology 205. An introductory survey of algal groups including benthic planktonic freshwater and marine representatives in local environments. Morphology, life histories, and ecology are emphasized. Collection and preservation techniques are demonstrated. Three lecture and three laboratory hours each week.

BIO 452. (554) Mammalogy (4) Prerequisite: Core courses. Study of mammals, emphasizing their evolution, taxonomic relationships, structural and physiological adaptation, and life histories. Laboratory sessions will include collection, identification, and preparation of specimens and observations of mammals in the field. Three lecture and three laboratory hours each week.

BIO 454 . (557) Herpetology (4) Prerequisite: Core courses: Study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Three lecture and three laboratory hours each week.

BIO 456. (556) Ornithology (4) Prerequisite: Core courses or consent of instructor. An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

BIO 457. (537) Ichthyology (4) Prerequisite: Core courses. The systematics, evolution, and natural history of fishes, with field work emphasizing the ecology and behavior

of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

BIOL 458. (565) Fisheries Biology (4) Prerequisite: Biology 457, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, migration and economic pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

BIO 460. (567) Limnology (4) Prerequisite: Core courses and Chemistry 102. An examination of the physical, chemical, and biological characteristics of freshwater systems, particularly lakes, with an emphasis on the interrelationships of these characteristics. Three lecture and three laboratory hours each week.

BIO 462. (552) Deep Sea Biology (3) Prerequisite: Biology 362. Biology of animals inhabiting the deep sea environment off North Carolina. Emphasizes faunal zonation, abyssal zoogeography, high pressure and low temperature adaptations, reproductive strategies, origin and speciation in deep sea. Three lecture hours each week.

BIO 465. (540) Biochemistry (3) Prerequisite: Chemistry 212. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzymes kinetics; bioenergetics, regulatory mechanisms. Three hours each week.

BIO 466. (534) Advanced Ecology (4) Prerequisite: Biology 366. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

BIO 468. (570) Planktonology (4) Prerequisite: Biology 365 or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

BIO 470. Ecology of Human Populations (3) Prerequisite: Biology 345, 366. A study of man's adaptation to diverse world environments utilizing geological, physiological, and ecological principles. Three hours each week.

BIO 472. (572) Marine Phycology (4) Prerequisite: Core courses. An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction. Three lecture and three laboratory hours each week.

BIO 474. (576) Comparative Morphology of Vascular Plants (4) Prerequisite: Core courses. An in-depth study of the major groups of vascular plants with emphasis on structure, life histories, development, and phylogeny. Three lecture and three laboratory hours each week.

BIO 475. (574) Plant Taxonomy (4) Prerequisite: Core courses or consent of instructor. An introduction to identification, classification, and nomenclature of vascular plants with emphasis on the flora of southeastern North Carolina. Two lecture and four laboratory hours each week.

BIO 477. (573) Mycology (4) Prerequisite: Biology 205 and 207. Taxonomy, morphology, and ecology of fungi with emphasis on fungal evolution and the importance of fungi to humans. Fungi as causal agents of both plant and animal diseases will also be discussed. Three lecture and three laboratory hours each week.

BIO 480. (580) Field Studies in Biology (1-6) Prerequisite: Biology 205, 206, and consent of instructor (Biology 366 and credit in advanced zoology or botany recommended). A research/experience-oriented field course offered in selected regional locales. Emphasis is placed on distribution, taxonomy, and ecology of animal and or/plant organisms.

BIO 481. (559) Marine invertebrate Zoology (4) Prerequisite: Core courses. A field oriented course which provides in-depth ecological and taxonomic treatment of selected invertebrate groups. Three lecture and three laboratory hours each week.

BIO 485. (585) Special Topics in Advanced Biology (1-6) Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

BIO 491. Directed Individual Study (1-3) Prerequisite: Biology 208, junior or senior standing, consent of instructor, and consent of department chairman.

BIO 495. Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Individual reports and group discussions of the results of student field, laboratory and/or library research on selected topics in Biology. May be repeated for a maximum of 3 semester hours.

BIO 499. Honors Work in Biology (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honor students.

For 292 and 492; 294 and 494 see explanations, on p. 78.

CHEMISTRY

Dr. Levy, Chairman. Dr. Adcock, Dr. Burgess, Dr. Cahill, Dr. Hoelzel, Dr. Hornack, Ms. R.B. Jones, Dr. S.B. Jones, Dr. Manock, Dr. Martin, Dr. Nance, Dr. Reeves, Dr. Sayed, Dr. Seaton, Dr. Ward, Dr. Willey.

Requirements for a concentration in Chemistry for the B.A. degree: Core courses: Chemistry 101-102, 101-51, 102-51, 211-212, 211-51, 212-51, 225, 235, 235-51, 325, 325-51, 355, 445, 495 or Environmental Studies 495, Mathematics 161-162, and Physics 201-202 or 101-102.

Also required are the courses in one of the following emphasis alternatives:

Education: Education-Psychology block of 31 semester hours, and four of the following courses: Biology 205, 206, 207; Geology 101, 120, and 150; and Physics 260. Students completing this option qualify for teaching certification in chemistry. By including one biology course from Biology 205, 206, 207 and two geology courses from Geology 101, 120, and 150, students completing this option also qualify for certification in science.

Environmental Science: Chemistry 277, Biology 205 or 206 or 207, Environmental Studies 195 , Geology 120, and Statistics 215. Among the core courses, Environmental Studies 495 is required.

Industrial Chemistry: Chemistry 277 and 485, Chemistry 315-316 or 435-51, Accounting 201, and Production and Decision Sciences 217 or Statistics 215. Chemistry 485 offered Spring 1991 and alternate years.

Marine Science: Chemistry 475, Biology 205 or 206 or Geology 101, 150, and either Biology 362 or Geology 450.

Premedical Science: Chemistry 417 and 465 and biology 206, 207, and 315. Chemistry 417 offered Spring 1990 and alternate years.

A "C" or better on each Chemistry course.

Requirements for a concentration in Chemistry for the B.S. degree: Chemistry 101-102, 101-51, 102-51, 211-212, 211-51, 212-51, 225, 235, 235-51, 315-316, 321-322, 321-51, 322-51, 355, 435, 435-51, 445; either 445-51, 465-51, 476, or 491 (1 hour): 495 and two of the following: 415, 446, 465, 485 and 491 (3 hours). Mathematics 161, 162, 261, and 361 and either Physics 201-202 or Physics 101-102, 206-207. A "C" or better on each Chemistry course. Students working for the B.S. degree should arrange their work so as to take Chemistry 321-322 in the junior year. Two years of German are recommended.

Chemistry Course Descriptions

CHM 101-102. General Chemistry (3-3) Prerequisite or corequisite: Mathematics 111-112 or 115. Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Normally taken concurrently with General Chemistry Laboratory (101-51, 102-51). Three hours each week.

CHML 101-51, 102-51. General Chemistry Laboratory (1-1) Prerequisite or corequisite: Chemistry 101-102. Introduction to techniques and equipment in the chemistry laboratory; interpretation of experimental results. Quantitative and qualitative analysis included. Three laboratory hours each week.

CHM 105-106-102. General Chemistry (2-2-3) Prerequisite corequisite: Mathematics 111-112 or 115. Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Chemistry 105-106 is slower-paced equivalent of Chemistry 101. General Chemistry Laboratory 101-51 is normally taken concurrently with Chemistry 106, and Chemistry 102-51 is taken with Chemistry 102. Chemistry 105-106, two hours each week. Chemistry 102, three hours each week.

CHM 103. Chemistry in Everyday life (4) A terminal, relatively non mathematical one semester course in chemistry for the non science major. Topics include atomic and molecular structure as a basis for a general understanding of chemical reactions, drug activity, cancer, nuclear power, pesticides, environmental problems, energy resources, food additives, and the chemical industry. Three lecture and three laboratory/discussion hours each week. May not be taken for credit after Chemistry 102 has been passed.

CHM 115. Fundamentals of General and Organic Chemistry (3) Prerequisite or corequisite: Mathematics 111. A one semester study of general and organic chemistry. Topics include measurement, states of matter, energy, atomic theory, bonding, reactions, gases, water, solutions, acidity, radioactivity, and an introduction to organic chemistry. Prepares students for Chemistry 215. Three lecture hours each week.

CHML 115-51. Laboratory for Fundamentals of General and Organic Chemistry (1) Corequisite: Chemistry 115. Introduction to techniques and equipment in the chemistry laboratory and interpretation of experimental results. Three laboratory hours each week.

CHM 211-212. Organic Chemistry (3-3) Prerequisite: Chemistry 102 and 102-51. Introduction to the chemistry of carbon compounds, including structural theory, synthesis, and reaction mechanisms. Normally taken concurrently with Organic Chemistry Laboratory (211-51, 212-51). Three hours each week.

CHML 211-51, 212-51. Organic Chemistry Laboratory (1-1) Prerequisite or corequisite: Chemistry 211-212. Three laboratory hours each week.

CHM 215. Fundamentals of Organic and Biological Chemistry (3) Prerequisite: Chemistry 115 and 115-51. A one-semester study of organic and biological chemistry. Topics include carboxylic acids, esters, amines, amides, carbohydrates, lipids, proteins, nucleic acids, nutrition, enzymes, hormones, neurotransmitters, and intermediary metabolism. Three lecture hours each week.

CHML 215-51. Laboratory for Fundamentals of Organic and Biological Chemistry (1) Corequisite: Chemistry 215. Introduction to equipment and techniques of organic and biological chemistry and interpretation of experimental results. Three laboratory hours each week.

CHM 225. Chemical Applications of Microcomputers (2) Prerequisite: Chemistry 102. A study of microcomputer applications in chemistry, including an introduction to microcomputer design, peripherals, applications software and preventive maintenance. Discussion of microcomputer communications and instrument interfacing. Programming in BASIC with chemical applications. No previous computer experience required. Intended for students who will be taking Chemistry 235, 321, or 325. Two hours each week.

CHM 235. Quantitative Analysis (2) Prerequisite: Chemistry 102, 102-51. Prerequisite or corequisite: Chemistry 225. Theory of (a) gravimetric and volumetric analysis. (b) instrumental techniques, and (c) sampling, sample preparation, and monitoring of air, water, etc. Normally taken concurrently with Quantitative Analysis Laboratory. Two hours each week.

CHML 235-51. Quantitative Analysis Laboratory (2) Prerequisite or corequisite: Chemistry 235. Four laboratory hours each week.

CHM 277. Environment Chemistry (3) Prerequisite: Chemistry 102. Introduction to the chemistry of air, soil, and natural waters. Processes of environmental degradation, cleanup, and pollution prevention. Selected current topics. Three hours each week.

CHML 315-316. Advanced Techniques of Organic Chemistry (2-2) Prerequisite or corequisite: Chemistry 211-212 and 211-51, 212-51. Theory and practice of chromatographic methods of separation and spectroscopic methods of identification. One lecture and three laboratory hours each week.

CHM 321. Physical Chemistry (3) Prerequisite: Chemistry 102, 225 or equivalent, Physics 202, and mathematics 261. Properties of matter, kinetic molecular theory, fundamentals of thermodynamics, phase equilibria, thermodynamics of chemical reactions, ionic equilibria, and electrochemistry. Three hours each week.

CHM 322. Physical Chemistry (3) Prerequisite: Chemistry 102, 225 or equivalent, Physics 202, and Mathematics 261. Chemical kinetics, introduction to quantum mechanics, atomic and molecular structure, and spectroscopy. Three hours each week.

CHML 321-51, 322-51. Physical Chemistry Laboratory (1-1) Prerequisite or corequisite: Chemistry 321 and 322, respectively. Three laboratory hours each week.

CHM 325. Brief Physical Chemistry (3) Prerequisite: Chemistry 102, 225 or equivalent experience, one sequence in Physics and Mathematics 151 or 161. An abbreviated course in fundamentals of physical chemistry. Normally taken concurrently with Brief Physical Chemistry Laboratory (325-51). May not be taken for credit after 321 has been passed. Three hours each week.

CHML 325-51 Brief Physical Chemistry Laboratory (1) Prerequisite or corequisite: Chemistry 325. Three laboratory hours each week.

CHM 355. History and Literature of Chemistry (1) Prerequisite: Junior standing. Introduction to chemical literature and sources of information and to the historical development of chemistry. One hour each week.

CHM 415. Advanced Organic Chemistry (3) Prerequisite: Chemistry 212. Theoretical organic chemistry with emphasis on reaction mechanisms and special synthetic methods. Three hours each week.

CHM 417. (517) Medicinal Chemistry (3) Prerequisite: Chemistry 212. Systematic study of the chemistry, as well as the biological activity of hormones, vitamins, drugs affecting the nervous system, and other miscellaneous agents. Prior Chemistry 415 or Chemistry 465 is recommended. Three hours each week. Spring 1990 and alternate years.

CHM 435. (535) Advanced Analytical Chemistry (2) Prerequisite: Chemistry 235, 321, or 325, and their laboratories. Theory of modern analytical instrumentation and techniques. Normally taken concurrently with Advanced Analytical Chemistry laboratory (435-51). Two hours each week.

CHML 435-51. (535-51) Advanced Analytical Chemistry Laboratory (2) Prerequisite or corequisite: Chemistry 435. Four laboratory hours each week.

CHM 445. Inorganic Chemistry (3) Prerequisite: Chemistry 321 or 325. Study of periodic relationships: crystal lattice theory; transition metals and ions; crystal field theory; organometallic structures and reactions; and reaction mechanisms. Three hours each week.

CHML 445-51. Inorganic Synthesis (1) Prerequisite or corequisite: Chemistry 445. Synthesis and techniques in inorganic chemistry. Normally taken concurrently with Inorganic Chemistry (445). Three laboratory hours each week.

CHM 446. (546) Advanced Inorganic Chemistry (3) Prerequisite: Chemistry 445. Topics in inorganic chemistry, including ligand field theory: chemical applications of group theory: hybridization of orbitals and molecular orbital theory, molecular vibration, spectroscopy, and principles of quantum mechanics. This course will emphasize these topics in the framework of the molecular symmetry. Three hours each week.

CHM 465. (565) Biochemistry (3) Prerequisite: Chemistry 212 and either 321 or 325. Study of the physical structures of carbohydrates, lipids, amino acids, proteins, nucleic acids, vitamins and minerals and the chemical principles governing their biological activity. Special emphasis will be given to enzyme kinetics, solution properties of macromolecules, and the thermodynamic principles of intermediary metabolism. Three hours each week.

CHML 465-51. (565-51) Biochemical Techniques and instrumentation Lab (1) Prerequisite: or corequisite: Chemistry 465. Theory and practice of advanced biochemical techniques, including buffer and reagent preparation, protein assay, protein purification, electrophoresis, enzyme kinetics, tryptic peptide digestion, membrane vesicle construction, DNA isolation, and radioisotope detection. Three hours each week.

CHM 475. (575) Chemical Oceanography (3) Prerequisite: Chemistry 102. Sources, distribution, forms of occurrence, and reactions of chemical species in seawater. This course will emphasize estuarine reactions, dynamic equilibria, air-seawater and sediment-seawater reactions, and human impact on the oceans. Prior Geology 150 is recommended. Three hours each week. Spring 1990 and alternate years.

CHM 476. (576) Chemical Analysis of Natural Waters (2) Prerequisite: One of the following: Chemistry 235, 277, or 475. Standard chemical methods will be used to analyze natural water samples, including several fresh water samples and seawater. Methods will be evaluated with respect to appropriate applications. Analyses to be studied include salinity, chloride, dissolved oxygen and oxygen demand, pH and alkalinity, nutrients, chlorophyll, suspended material, and dissolved metals. One lecture and three laboratory hours each week. Spring 1991 and alternate years.

CHM 484. (585) Industrial Chemistry (3) Prerequisite: Chemistry 212 and either 321 or 325. The characteristics of large scale chemical processes, including material of construction, reactor design, fluid transport, solvent recovery and reuse, quality control, and environmental impact. Specific example processes include the conversion of raw petroleum feedstocks to plastics, fibers, and fuels, and the production of ethical drugs. Three hours each week. Spring 1991 and alternate years.

CHM 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

CHM 495. Senior Seminar (1-3) Prerequisite: Chemistry 355 and 25 semester hours of chemistry courses. Discussion of selected topics. One hour each week.

CHM 499. Honors work in Chemistry (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honors students.

For 292 and 492; 294 and 494, see explanation on p. 78.

COMPUTER SCIENCE

(Mathematical Sciences)

Creative Arts

Mr. Sporre, Chairman.

The Department of Creative is comprised of divisions of Art, Drama, Music, and Speech Communication. The department offers concentrations leading to the B.A. degree in (1) Creative Arts in Art and Drama, (2) Music and (3) Speech Communication.

CRA 110. Introduction to the Arts (3) An inter-and multi-disciplinary introduction to the arts, aesthetic perception and response, and the relationship of the arts to individuals and society—past and present. Treats visual art, music, theatre, dance, film and architecture.

CRA 112. Introduction to Dance (3) Appreciation of dance as an art form. The study of dance as a reflection and expression of various cultures from pre-history to present. Includes exposure to contemporary concert dance through films and televised or live performance. Introductory experience in selected dance techniques. Two class hours and two laboratory hours each week.

CRA 136. (Physical Education 136) Movement Exploration (3) Study through creative dance techniques of the body's potential as a tool for creative expression. Exploration of the relationship of dance to other art forms. Solo and group work using basic art concepts and the individual's own experience as materials for movement improvisation and composition. Three hours per week. No dance training necessary.

ART

Ms. Conner, Mr. Furst, Mr. LeQuire, Dr. Myers.

Requirements for a concentration in Creative Arts-Art for the B.A. degree: Art 101 102; either 111 or 112; either Art 211 or 212; six hours chosen from Art 201, 202, 204; three hours of three or four hundred level art history; three hours chosen from Music 261 or 262; three hours chosen from Drama 321, 322, 323; six hours chosen from practical and theoretical courses in Drama or Music (histories not included): twenty-seven hours chosen from three studio areas. Electives chosen in consultation with the advisor. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

Art Course Descriptions

(Department of Creative Arts)

ART 101, 102. Design (3,3) 101: Study of the principles of two-dimensional design and introduction to color theory. 102: Study of the concepts of three-dimensional design and of the nature of problem solving. One lecture and six studio hours each week.

ART 111, 112. Drawing Fundamentals (3,3) Fundamentals of drawing using various media: charcoal, pencil, ink, etc. Four studio hours each week.

ART 201. Ancient World Through medieval period (3) A survey of art from ancient through medieval with an emphasis on major artistic developments in their historical and cultural context from 20,000 B.C. to 1400 A.D. Three hours each week.

ART 202. Renaissance Through Contemporary Art (3) A survey of art from the Renaissance to the present with an emphasis on major artistic developments in their historical and cultural context from 100 A.D. Three hours each week.

ART 204. Survey of American Art (3) A survey of American art from Colonial times to the present, with an emphasis on major examples of architecture, painting, sculpture, graphics and the decorative arts. Three hours each week.

ART 211. Beginning Life Drawing (3) Prerequisite: Art 111 or 112 with permission of instructor. Drawing from the model: structure, geometric form, and composition using various media: pencil, charcoal, india ink, etc. Six studio hours per week.

ART 212. Beginning Life Drawing (3) Prerequisite: Art 111 or 112 with permission of instructor. Drawing from the model: structure, anatomy and composition using various media: pencil, charcoal, india ink, etc. Six studio hours per week.

ART 221, 222. Beginning Ceramics (3,3) Introduction to three-dimensional form and design in the manipulation of clays and glazes; basic techniques and approaches. One lecture and six studio hours each week.

ART 231, 232. Beginning Printmaking (3,3) Prerequisite: Art 101 or 111 or 112 or permission of instructor. Problems in relief and intaglio using a variety of materials. May be taken in any sequence. Six studio hours each week.

ART 241, 242. Beginning Painting (3,3) A beginning course investigating a variety of media, techniques, and subjects. Six studio hours each week.

ART 251, 252. Beginning Sculpture (3,3) Prerequisite: Art 102 or consent of instructor. Three-dimensional form in clay and plaster; basics of modeling and casting abstract and life forms. One lecture and six studio hours each week.

ART 306. Italian Renaissance Art (3) Prerequisite: Art 201, 202 or permission of instructor. A study of the development of art in italy, 1200-1600 A.D., with an emphasis on painting, sculpture, architecture and graphics as related to Renaissance culture. Three hours each week.

ART 307. History of Printmaking (3) Survey of printed pictures from the 15th Century to the present. An appreciation of the evolution of printmaking from its practical applications to Fine Art, including major artists as printmakers. Studio as experience optional. Three hours each week.

ART 308. 20th Century Art (3) Prerequisite: Art 201, 202, 204, or permission of instructor. A study of movements and issues in art from 1900 to the present in Europe and the United States with an emphasis on developments as they contribute to contemporary art. Painting, sculpture, architecture, graphics and other vehicles of artistic expression will be discussed as they relate to these developments. Three hours each week.

ART 311. Intermediate Life Drawing (3) Prerequisite: Art 211, 212, or permission of instructor. Drawing from the model: structure, composition, development of personal expression. Six studio hours per week.

ART 312. Intermediate Life Drawing (3) Prerequisite: Art 211, 212, or permission of instructor. Drawing from the model: structure, anatomy, development of personal expression. Six studio hours per week.

ART 321, 322. Intermediate Ceramics (3,3) Prerequisite: Art 222 or consent of instructor. Continuation of three-dimensional forms and design in manipulation of clays and glazes; basics of kiln construction and chemistry of glazes. One lecture and six studio hours each week.

ART 331, 332. Intermediate Printmaking (3,3) Prerequisite: Art 231, 232 or permission of instructor. Further exploration of printmaking techniques in relief, intaglio, silkscreen. May be taken in any sequence. Six studio hours each week.

ART 341, 342. Intermediate Painting (3,3) Prerequisite: Art 101, 242 or consent of instructor. Further exploration of painting techniques and expression. Six studio hours each week.

ART 351, 352. Intermediate Sculpture (3,3) Prerequisite: Art 252 or consent of instructor. Three-dimensional form in plaster, ceramics and metals. One lecture and six studio hours each week.

ART 387. (Anthropology 387) Museum Studies (3) Prerequisite: Permission of instructor. A lecture course focussing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition and education. Three hours each week.

ARTL 387-51. (Anthropology 387-51) Museum Studies Practicum (1) Corequisite: Art 387 (Ant 387). Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ART 411. Advanced Life Drawing (3) Prerequisite: Art 311, 312 or permission of instructor. Drawing from the model: drawing as a finished product, exploration of drawing techniques. Six studio hours per week.

ART 412. Advanced Drawing (3) Prerequisite: Art 411 or permission of instructor. Drawing as a finished product, exploration of drawing techniques and subject matter. Six studio hours per week.

ART 421, 422. Advanced Ceramics (3,3) Prerequisite: Art 322 or consent of instructor. Further experience in three-dimensional form and design and emphasis on kiln construction and theory; physical and chemical properties of clays and glazes including the empirical method of glaze calculation. One lecture and six studio hours each week.

ART 431, 432. Advanced printmaking (3,3) Prerequisite: Art 331 and 332 or permission of instructor. Further exploration of printmaking techniques in relief, intaglio, silkscreen and collograph. May be taken in any sequence. Six studio hours each week.

ART 441, 442. Advanced Painting (3,3) Prerequisite: Art 342 or consent of instructor. Emphasis on techniques and expression. Six studio hours each week.

ART 451, 452. Advanced Sculpture (3,3) Prerequisite: Art 352 or consent of instructor. Continuation of study of form with emphasis on casting and welding of metals. One lecture and six studio hours each week.

ART 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ART 495. Seminar In Art (1-3). Prerequisite: Junior standing. Consideration of special subjects not covered in detail in regular course offerings. More than one topic may be taken for credit.

For 292 and 492; 294 and 494 see explanation on p. 78.

DRAMA

Mr. Macie, Dr. Rogers, Mr. Sporre, Mr. Swink, Dr. Theodore.

Requirements for concentration in Creative Arts-Drama for the B.A. degree: Drama 201, 205, 130 or 231, 307; six credits from Drama 321 or 322 or 323; three credits from Art 101 or 102 or 201 or 202 or 204; three credits from Music 105 or 115; nine credits of electives in Creative Arts outside of Drama. An option comprising one of the following also must be fulfilled. Option 1 (Acting): Drama 206, 232 (4 credits), 333 (4 credits), 355, and Communication 230. Option 2 (Directing): Drama 232 (4 credits), 306, 355, 455, 461, or 462. Option 3 (Design/Technical): Drama 202, 206, 305, 306, 405, 406. Option 4 (History and Theory): Drama 321 or 322 or 323; 345, 355, 461, 462. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

Drama Course Descriptions

(Department of Creative Arts)

DRA 130. Improvisation (3) Exploration of spontaneous dramatic playing through intensive exercises and theatre games meant to generate greater individual freedom and self-discipline, as well as to employ improvisation techniques in acting to develop characterization, stage movement, and ensemble performance.

DRA 135. (Physical Education 102) Dance Techniques (1) Basic dance technique on a beginner level, including ballet, jazz, and modern dance.

DRA 201. Technical Production I (3) Basic principles of scenic materials and equipment. Use of materials, methods of construction, and handling of scenery and properties. One lecture and six laboratory hours per week. Participation in University Theatre productions required.

DRA 202. Technical Production II (3) Prerequisite: Drama 201 or consent of instructor. Practical training in shop organization and technical production, plus basic principles of theatrical graphics. Two lecture and four laboratory hours each week. Participation in University Theatre productions required.

DRA 205. Stage Make-up (2) Theory and practice in the application of make-up for theatrical performances. Four laboratory hours each week.

DRA 206. Costume History and Construction (3) An examination of major historical costumes styles. The student also will learn basic costume construction techniques, applying those techniques to individual projects as well as to the costumes for departmental productions. Two lecture hours and three laboratory hours per week.

DRA 221. Introduction to the Theatre (3) Appreciation of theatre through an understanding of its artistic elements, history, dramatic literature, and audience involvement. Three hours per week.

DRA 225. History and Appreciation of Film (3) A survey through film of the development of motion picture from its primitive beginnings to the advent of sound film. A visual illustration of the basic aesthetic principles controlling film as art.

DRA 231. Acting 1 (4) Prerequisite: Permission of instructor. Use of body and voice as instruments of expression; development of acting exercise structure with mind and breathing control practiced. Three class hours and 2 1/2 laboratory hours each week.

DRA 232. Acting II (4) Prerequisite: Acting I and/or permission of instructor. Continuing and expanding work on the use of body and voice. Further development of acting exercise structure with emphasis on improvisation and one scene study. Three class hours and 2 1/2 laboratory hours each week.

DRA 235. Dance Technique II (1) Prerequisite: Dance Technique I or equivalent and consent of instructor. Basic dance technique on an intermediate level.

DRA 305. Scenic Design (3) Prerequisite: Drama 202 or consent of instructor. Play interpretation through the scenic elements. Problems in theatre graphics, techniques application, script interpretation, scenic design and style. Two class hours and two laboratory hours each week.

DRA 306. Stage Lighting (3) Prerequisite: Drama 202 or consent of instructor. Basic techniques of theatrical lighting. Includes fundamentals of electricity, lighting equipment, the use of color, and the basic principles of design. Two lecture and two laboratory hours each week. Participation in University Theatre productions required.

DRA 307. Theatre Management (3) Course focuses on various aspects of management: publicity, business management, public relations, and house management.

DRA 321, 322, 323. Theatre History (3,3,3) 321: Pre-Greek beginnings to seventeenth century, 322: Seventeenth century to nineteenth century. 323: Late nineteenth century to the present day. Three hours each week.

DRA 333. Acting III (1-4) Prerequisite: Acting I and II and/or consent of instructor. Scene study. A contractual course with individual student commitment concerning the number of scene studies to be attempted. Can be taken for up to four hours accumulative maximum.

DRA 345 Playwriting I (3) Analysis of one-act plays and their construction; the writing of an original one-act play required. Three hours each week.

DRA 355. Directing I (3) Fundamental principles of directing with emphasis on one-act productions. Three hours each week.

DRA 405. Scenic Design II (3) Prerequisite: Drama 305 or consent of instructor. An advanced approach to historical styles and special design problems, including the relationship of architecture to the mise en scene.

DRA 406. Costume Design (3) Application of the principles of theatrical design to stage costuming. Three hours per week.

DRA 425. Aesthetics of Film (3) A study of the various forms and content of film as controlled by the film director. The theoretical aspects of film as a work of art. Two class hours and two laboratory hours each week.

DRA 445. Playwriting II (3) Prerequisite: Drama 345 or permission of instructor. Advanced techniques of playwriting with emphasis on full length play; the writing of an original full length play. Three hours each week.

DRA 455. Directing II. (3) Prerequisite: Drama 355. Advanced techniques in the direction of plays for the stage. Three hours each week.

DRA 461, 462. Seminar in Dramatic Theory (3,3) Prerequisite: Senior standing or consent of instructor. Growth and results of dramatic theory on theatre. 461: Aristotle to Romantic Period. 462: Ibsen to the present. Three hours each week.

DRA 485. Senior Project (3) Every major may choose a area in drama for a senior project. The proposal for planning and executing a public presentation in the chosen area must be submitted to the faculty of the Department of Creative Arts for approval prior to the semester during which the project will be attempted.

DRA 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

DRA 495. Theatre Seminars (1-3)

DRA 499. Honors Work in Drama (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492; 294 and 494 see explanation on p. 78.

MUSIC

Mr. Bongiorno, Dr. Deas, Dr. Errante, Dr. Hickman, Dr. Martin, Mr. McLamb, Mr. Nathanson, Dr. Rozier, Ms. White.

Requirements for a Concentration in Music for the B.A. degree: Students may emphasize either General Music or Performance. Core curses, common to either emphasis: Music 101, 102, 201, 202, 261, 262.

General Music: In addition to the core requirements the general music student will be required to complete three hours of Art History (201 or 202) plus three hours of introduction to Theatre (DRA 221); 10 hours of applied music in the principal area, at least two hours at the 300 level; four hours of applied music in a second area; six hours of major ensemble (keyboard students may substitute up to two hours of 082 and/or 131); nine hours of Music Electives; and Recital (at least twenty minutes) or Thesis.

Performance: In addition to the core requirements, the student who emphasizes performance must complete and additional five hours of Music Theory (MUS 301 and choice of 302 or 303); six additional hours of Music History (MUS 361, 362, 363); 22 hours of applied music in the principal area (at least 12 hours at the 300 level). Students pursuing the composition emphasis noted below will substitute 16 hours of composition and six hours of applied music in a secondary area (at least two hours at the 300 level) for the 22 hour applied music requirement; 8 hours of major ensemble (three of these hours can be counted toward basic studies requirements); two recital (the Junior Recital is normally a half recital); three hours from ART 201, 202, or DRA 221, (also to be counted toward basic studies requirements); and 21 hours of music electives chosen according to the following emphasis:

(1) Vocal Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 271, 272, 273, 274, 379, and eight hours of free electives.

(2) Keyboard Performance: Six hours of secondary applied music (not to include class piano); MUS 285; 275 or 276; 375 or 376; and six hours of free music electives.

(3) Keyboard Performance with Pedagogy: Three hours of secondary applied music (not to include class piano), MUS 285, 275, 276, 375, 376, two semesters of 475, and three hours of free music electives. Also, the major ensemble requirement stated above is reduced to six hours (three to be counted toward basic studies requirements) of which only two hours can be substituted by 082 or 131.

(4) Instrumental Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 371, and 12 hours of free music electives.

A "C" or better grade must be achieved in all courses taken to meet the Music degree requirements. All Music majors must pass the piano proficiency exam and the listening exams. All non-keyboard students who do not pass the piano proficiency examination upon entering the music program are required to enroll in the appropriate section of class piano every semester until the exam is successfully completed. All keyboard majors are required to take the piano proficiency every semester until it is passed.

Music students pursuing the vocal and instrumental performance options are required to take two hours of piano beyond the proficiency exam. The student must satisfactorily meet performance seminar and recital attendance requirements.

Admission to the music program requires an audition, interview, and theory placement test.

Music Course Descriptions

(Department of Creative Arts)

MUS 082. Accompanying (1) Prerequisite: Consent of instructor. Accumulative credit limited to eight semester hours. Student will be assigned an instrumentalist or vocalist with whom to work. One hourly class meeting per week, plus accompanying for lesson of soloist and adequate rehearsal time with soloist per week to prepare for the lesson of the soloist.

MUS 083. UNCW Chamber Singers (1) Select group drawn from the concert choir (086) by audition. Group studies the gamut of works from chamber works to secular and popular music. Two hourly rehearsal per week. Accumulative credit limited to eight semester hours.

MUS 084. Jazz Ensemble (1) Prerequisite: Consent of instructor. The study and performance of jazz techniques and interpretation of popular styles in large and/or small ensemble. Open to any student who has had instrumental experience. Participation is determined by audition at the beginning of each semester. One 2-hour rehearsal per week. Accumulative credit limited to eight semester hours.

MUS 085. Wind Ensemble (1) Open to any student who has had previous training or experience in instrumental music and who has the consent of the director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

MUS 086. Concert Choir (1) Prerequisite: Auditions by director. Group studies and performs choral music of various historical periods and styles. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

MUS 087. Orchestra (1) Tuesdays 7:30-9:30 p.m. Auditions by director. Study and performance of the orchestral literature performed with the Wilmington Symphony Orchestra which meets for a minimum of two hours per week and gives an average of four performances per year. Accumulative credit limited to eight semester hours.

MUS 101. Theory I (3) Prerequisite: Placement test. Corequisite: Music 101-51. An indepth study of the basic material of music, including the physic of sound, time classification, notation of pitch and rhythm, intervals, scales and modes, key signatures and triads. Three hours per week.

MUS 101-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: Music 101. Includes melodic, harmonic and rhythmic dictation, singing and performing of the keyboard materials introduced in Music 101-01. Two hours per week.

MUS 102. Theory I (3) Prerequisite: Music 101. Corequisite: Music 102-51. A study of tonality, triads in inversions, phrase structure and cadences, harmonic progression, the technique of harmonization and nonharmonic tones. Three hours per week.

MUS 102-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: Music 102. Application through dictation, Sight-Singing and keyboard exercises the materials introduced in Music 102-01. Two hours per week.

MUS 105. Rudiments of Music (3) A general survey of the basic materials of music, including the study of musical rudiments, listening experiences, sight-singing, keyboard, and other related activities. The course is designed for elementary education students, public school teacher recertification, music students who wish to prepare for Music Theory 101, and for students who wish to increase their knowledge of music. Three hours each week.

MUS 115. Survey of Music Literature (3) Designed to increase the student's knowledge and appreciation of music; technical knowledge of music not required. Three hours each week.

MUS 116. History of Jazz (3) A survey of the evolution of this American art form from its African roots and European influences to the present. Technical knowledge of music not required. Three hours each week.

MUS 117. American Music (3) A survey of American composers, musicians, and music making (classical, folk and religious) from the earliest days of European settlement to the present. Technical knowledge of music helpful, but not required. Three hours each week.

MUS 118. Survey of Electronic Music (3) A non-technical survey of electronic music, analytical study of compositions from recordings, and basic compositional methods utilizing the facilities of the UNCW Electronic Music Studio. Technical knowledge of music not required.

MUS 131. Chamber Music Workshop (1) Open for any student who has had previous training and experience and who has the consent of the chairman of the department. Small instrumental and vocal ensembles. Type of group will depend upon availability of personnel and faculty instructor. Two hours per week. Accumulative credit.

MUS 133. Opera Workshop (3) Prerequisite: Music 195 (Voice) or consent of instructor. The musical preparation and staging of operatic scenes through dramatic interpretation, body movement, and improvisation. Three hours each week.

MUS 134. Choral Workshop (3) Survey of choral literature of all periods, including contemporary and popular, through performance, score study, and analytical listening. Three hours each week.

MUS 141-142. Class Piano I (1-1) Prerequisite: Consent of instructor. Recommended for all students enrolled in Music Theory 101-102 and music majors who have not passed the piano proficiency examination. Laboratory hours as required.

MUS 143-144. Class Guitar (1-1) Prerequisite: Consent of instructor. Class instruction in classical guitar. Prior experience is not required. Two laboratory hours each week.

MUS 146. Class Voice (1) Prerequisite: Consent of instructor. Singing techniques learned through vocal exercises and study of song literature. Two hours each week. Accumulative credit.

MUS 195. Lower Level Applied Music, Private Lessons (1) Prerequisite: Consent of instructor. One half hour lesson per week. Requires a minimum of five practice hours per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viola	Trombone
Cello	Baritone Horn
String	BassTuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 196. Lower Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit (Instruments as indicated in MUS 195.)

MUS 197. Lower Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 195.)

MUS 201. Theory II (3) Prerequisite: Music 102. Corequisite: Music 201-51. A study of the musical process as observed in the literature of the common practice period. Based upon both structural and functional analysis as well as problem solving and controlled composition exercises. Includes secondary dominants, chromatic approach chords and the concept of modulation. Three hours per week.

MUS 201-51. Aural Skills and Sight-Singing (0) Prerequisite: Music 102. Corequisite Music 201. Includes melodic and rhythmic dictation, singing and memorizing various modes, scales and broken chord patterns in root position, harmonic dictation with emphasis on modulation. Two hours per week.

MUS 202. Music Theory II (3) Prerequisite: Music 201. Corequisite: Music 202-51. A study of the musical process as observed in the late common practice and early twentieth century periods. The development further of the concept of modulation and chromatic harmonies and introduction to such practices as quartal and polytonal harmonies. Three hours per week.

MUS 202-51. Aural Skills and Sight-Singing (0) Prerequisite: Music 201. Corequisite: Music 202. Continuation of Music 201-51 with an emphasis on inversions and chromatically derived patterns. Utilization of quartal and polytonal harmonies. Two hours per week.

MUS 203. Composition (1 or 3) Prerequisite: Consent of instructor. A beginning study of compositional techniques though direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

MUS 218. Electronic Music Composition (2) Prerequisite: Music 118. A study of basic recording and synthesizer techniques utilizing the facilities of the UNCW Electronic Music Studio. Two hours per week.

MUS 235. Jazz improvisation (2) Prerequisite: Music 101-102 or consent of instructor. Development of materials and practices for improvisational skills in the jazz idiom. Open to any student with instrumental experience. Presentation in both lecture and performance format. Two one (1) hour meetings per week.

MUS 236. Jazz Improvisation II (2) Prerequisite: Music 235 or consent of instructor. Materials and practices for further development of improvisational skills in the jazz idiom. Presentation in both lecture and performance format. Two one (1) hour meetings each week.

MUS 241-242. Class Piano II (1-1) Prerequisite: Music 142 or consent of instructor based on placement. Recommended for all music majors who have not passed the piano proficiency examination. Two laboratory hours each week.

MUS 243-244. Class Strings (1-1) Prerequisite: Consent of instructor. Class instruction in violin, viola, cello, or string bass. Two laboratory hours each week.

MUS 245. Woodwind Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 247. Brass Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 249. Percussion Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 255. Church Music Literature (3) Prerequisite: Knowledge of music fundamentals. A survey of music literature of the western church including a study of the historical function of various musical idioms and styles.

MUS 257. Service Playing (2) Prerequisite: Permission of instructor. Practical study of service playing: organ improvisations, modulations, and related problems. Two hours per week.

MUS 261, 262. Introduction to Music History I & II (3, 3) A two-semester overview of music history and literature stressing the stylistic developments of music and related social and historical events. 261: Music history and literature of the Middle Ages, Renaissance, and Baroque. 262: Music history and literature of the Classic, Romantic, and Contemporary periods. Three hours per week.

MUS 271. Italian Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of Italian diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 272. English Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of English diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class Two hours per week instruction.

MUS 273. German Diction for Singers (1) Prerequisite: Music major and/or consent or instructor. Basic principles of German diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 274. French Diction for Singers (1) Prerequisite: Music major or consent of instructor. Basic principles of French diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 275, 276. Keyboard Literature I & II (3,3) Prerequisite: One year private keyboard instruction at the college level. A survey of keyboard literature in relation to contemporary pedagogical use. Historical evolution of instrument design included. 275: Beginning and intermediate keyboard literature of the 18th, 19th and 20th centuries. 276: Advanced literature of the 18th, 19th and 20th centuries. Three hours per week.

MUS 285. Basic Conducting (3) Prerequisite: Music 102, 142. An examination of conducting techniques, score reading techniques and an understanding of terminology.

MUS 301. Form/Analysis (3) Prerequisite: Music 202. A study of forms common in Western music from 1600 to the present and the development of skills in analysis. Three hours each week.

MUS 302. Modal Counterpoint (2) Prerequisite: Music 301. A study of strict contrapuntal practice as observed in the church music of Palestrina, Lassus and other 16th century composers. Includes writing in 2, 3 and 4 "free" voices with and without text as well as 2 & 3 part canons. Techniques of melodic and contrapuntal inversion are also covered. Two hours per week.

MUS 303. Tonal Counterpoint (2) Prerequisite: Music 301. A study of contrapuntal practice as observed in the music of J.S. Bach and other 17th and 18th century composers. Includes analysis and composition of both Invention and Fugue. Also includes contrapuntal melodic inversion. Two hours per week.

MUS 306. Orchestration (2) Prerequisite: Music 243-244, 245, 247, and 249, or consent of instructor. Techniques of transcribing, arranging, and scoring music for various instruments and instrumental combinations. Designed for students concentrating in music. Two hours each week.

MUS 307. Twentieth Century Idioms (2) Prerequisite: Music 301. An indepth study of musical practice from 1900 to the present based upon both structural and functional analysis as well as problem solving and controlled compositional exercises. Includes quartal harmonies, mixed meters, texture and timbre as musical parameters, indeterminacy and serialism. Two hours per week.

MUS 308. Jazz Arranging (2) Prerequisite: Music 202, 236. Arranging and scoring the jazz combo, with emphasis on contemporary styles. Presentation in both lecture and performance format. Two hours per week.

MUS 325. Music Education for Elementary Teachers (3) Prerequisite: Music 105 (recommended) or Music 115. Approach to the teaching of music at the elementary level, including the use of piano laboratory. Three hours each week.

MUS 326. Methods of Teaching Music in the Elementary Schools (K-6) (2) Prerequisite: Consent of instructor; open only to currently enrolled music eduction majors. The purpose of this course is to study the scope and goals of the elementary music curriculum, the organization of musical content with regard to learning theories and developmental characteristics of the child, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on some of the innovative ideas in the field, including techniques developed by Orff and Kodaly. The course will also include an evaluation of music textbooks and materials for this level.

MUS 327. Methods of Teaching Music in Secondary Schools (7-12) (2) Prerequisite: Open only to currently enrolled music education majors with consent of instructor. The purpose of this course is to study the scope and goals of the secondary music curriculum, the organization of musical content with regard to learning theories and behavioral characteristics of the adolescent, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on methods for teaching music in the classroom. The course will also include an evaluation of music textbooks and materials for this level.

MUS 355. Music in Religious Institutions (3) Prerequisite: Music 255. A study of the philosophic and administrative dimensions of music in religious institutions. Topics include historical antecedents and contemporary patterns. Three hours per week.

MUS 361, 362, 363. History of Music (2,2,2) Prerequisite: Music 261, 262 and for 362 & 363 only, Music 301, 361: Stylistic development of music of the Medieval and Renaissance eras. 362: Music history and literature of the 17th and 18th centuries. 363: Music history and literature of the 19th and 20th centuries. Two hours per week.

MUS 364. Contemporary Music Literature (2) Prerequisite: Music 301 and 363. A study of music from the contemporary era.

MUSIC 365. Modern Jazz (3) Prerequisite: Music 116, 236. Study of jazz music and the musicians from 1940 to the present. Presentation in both lecture and performance format. Three hours each week.

MUS 371. Instrumental Pedagogy and Literature (2) Prerequisite: Two years of college instrumental applied music. Problems, materials, and methods in teaching instruments to private students. Two hours per week.

MUS 372. Jazz Pedagogy (2) Prerequisite: Music 235, 285. Techniques and methods for teaching jazz, emphasizing rehearsal techniques for jazz ensembles. Lecture format plus practical conducting experience with one of the university's jazz ensembles. Two hours each week.

MUS 373. Instrumental Methods (2) Prerequisite: Consent of instructor; Music 285, 243, 245, 247, 249. Methods of teaching instrumental classes and ensembles from elementary through senior high school. Includes repertoire, marching band tech-

niques, history, the designing of a total program, rehearsal techniques, techniques of developing musicianship, and practical aspects of teaching instrumental music.

MUS 375. Piano Pedagogy I (3) Prerequisite: Two years of private piano instruction at college level. Problems, materials, and methods and teaching beginning piano to children.

MUS 376. Piano Pedagogy II (3) Prerequisite: Two years of private piano instruction at college level. Problems, materials, and methods in teaching piano to older students of high school and early college age.

MUS 377. Choral Methods (2) Prerequisite: Consent of instructor; Music 285. Methods of teaching choral ensembles from elementary through senior high school. Includes repertoire, history, the designing of a total program, rehearsal techniques, techniques of developing musicianship and the practical aspects of teaching choral music.

MUS 379. Vocal Pedagogy and Literature (2) Prerequisite: Two years of college vocal study. Basic procedures of teaching voice. Materials for solo voice studied and performed. Two hours each week.

MUS 393. Junior Recital (1) Prerequisite: Consent of faculty. A performance of at least 20 minutes of repertoire selected from the appropriate levels of difficulty. May be repeated once for credit.

MUS 395. Upper Level Applied Music, Private Lessons (1) Prerequisite: Consent of instructor. One half hour lesson per week. Requires a minimum of five practice hours per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viola	Trombone
Cello	Baritone Horn
String Bass	Tuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 396. Upper Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit. (instruments as indicated in MUS 395.)

MUS 397. Upper Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

MUS 403. Advanced Composition (3) Prerequisite: Music 203 and consent of instructor. Music majors only. Advanced study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

IUS 475. Practicum in Applied Teaching (1) Prerequisite: Music 371, or 375-376, or 379. Students will develop and implement a private studio under the guidance of a faculty member. One hour per week.

IUS 485. Advanced Conducting (2) Prerequisite: Music 285. Study in either choral or instrumental techniques. This course enables the student to work with the appropriate ensemble using selected literature, i.e., orchestral, wind ensemble or vocal literature, for the various mediums.

IUS 490. Thesis (1) A research thesis in a subject to be determined in consultation with the music faculty during the semester preceding the taking of this course.

IUS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

IUS 493. Senior Recital (1) Prerequisite: Consent of the music faculty. A performance of at least 40 minutes of repertoire selected from the appropriate levels of difficultly. May be repeated once for credit.

IUS 495. Seminar in Music (1-3) Prerequisite: Junior standing. Consideration of special subjects not covered in detail in regular course offerings. More than one topic may be taken for credit.

IUS 499. Honors Work in Music (2-3) Prerequisite: Eligibility for honors program, and junior or senior standing. Independent study for honor students.

or 292 and 492; 294 and 494, see explanation on p. 78.

SPEECH COMMUNICATION

r. Noor Al-Deen, Dr. Pullum, Dr. Rohler, Dr. Tallant, Mr. Trimble, Dr. Weiss.

Requirements for a concentration in Speech Communication for the B.A. degree: ommunication: 105, 221, 230, 275, 327, 340, 341; Anthropology 208; English 320; hilosophy and Religion 110; Psychology 311; and six hours of Foreign Languages and iteratures or Computer Science Language. The collateral area (18 hours) will be etermined individually in consultation with the advisor. A grade of "C" or better on all equired courses in the concentration.

Speech Communication Course Descriptions

(Department of Creative Arts)

OM 105. Fundamentals of Speech (3) Principles and basic skills in speaking and listening; classroom exercise and discussion. Three hours each week.

OM 116. Oral Interpretation of Literature (3) The study and analysis of literature through the medium of oral performance. Three hours each week.

COM 170. Intercollegiate Forensics (1) One hour of academic credit each semester (up to eight hours total) for participation in debate and/or individual speaking events on the Intercollegiate Forensics Team. One hour each week.

COM 210. Oral Interpretation of Children's Literature (3) Focuses on several methods of performance of children's literature. Storytelling, solo performance and group performance will be covered. Areas of emphasis will be selection of suitable material, cutting of the material and techniques of performance. Three hours each week.

COM 220. Interpersonal Communication (3) This course focuses upon the communication process in face-to-face situations. It is designed to improve the everyday communication skills of the student through a greater understanding of the interpersonal process. Emphasis is placed upon the development of interviewing techniques, information acquisition and persuasive dialogues. Three hours each week.

COM 221. Group Discussion (3) Prerequisite: Communication 105 or consent of instructor. The study of and practice in oral group methodologies, including panel, forum and symposium speaking. Three hours each week.

COM 230. Voice and Diction (3) Principles and use of the voice exercises in vocal variety, articulation and pronunciation. Three hours each week.

COM 265. Survey of Mass Communications (3) An examination of U.S. radio, television, newspaper, magazines and film. Emphasis on their development, functions, theoretical foundations, present uses, and effects. Special project required. Three hours each week.

COM 268. Broadcast Journalism (3) Prerequisite: English 102. Principles and basic skills in writing for the broadcast media; includes exercises inside and outside of classroom. Emphasis on broadcast news writing, news coverage, news editing, and news problems and potentials. Three hours each week.

COM 270. ParliamentaryProcedure (1) Principles and rules governing deliberative assemblies. One hour each week.

COM 275. The Art of Persuasive Speech (3) Prerequisite: Communication 105 or consent of instructor. Power of speech as a tool to control thought processes of others in both negative and positive ways. Three hours each week.

COM 276. Debate (3) Prerequisite: Communication 105, 170, or consent of instructor. Principles of argumentation and style in their application to formal debate; practice in conventional debate form on current national intercollegiate debate resolution. Three hours each week.

COM 277. Argumentation (3) Prerequisite: Communication 105, Philosophy 110, or consent of the instructor. Principles of argumentation, including theory and practice. Emphasis on development of argument-analysis skills. Techniques for clear, effective, and reasoned advocacy. Three hours each week.

COM 290. Rhetoric of Popular Culture (3) Analysis will focus upon an understanding of the various persuasive influences inherent in modern society. Areas of emphasis will include analysis of persuasive appeals in advertising, music, art, movies, theatre, social movements, politics, literature, and sports, Three hours each week.

COM 316. Advanced Oral Interpretation (3) Prerequisite: Communication 116 or by consent of the instructor. Survey of interpretation history and theory; performance emphasis on such advanced projects as program creation, book reviewing and adapting prose and poetry. Three hours each week.

COM 320. Oral Interpretation of Southern Literature (3) Prerequisite: Communication 116 or consent of the instructor. The performance of Southern Literature. Focuses primarily on prose, fiction, and humorous essays by contemporary authors including Welty, O'Conner, McCorkle; explores basic and advanced performance techniques.

COM 325. Business and Professional Speaking (3) Prerequisite: Communication 105. Public speaking skills in directed experiences especially related to speech communication tasks which accompany the role of a business or professional person. Topics include the delivery of briefings, manuscript speeches, conferences, interviewing, salesmanship, use of electronic extenders and visual aids. Three hours each week.

COM 327. Organizational Communication (3) Prerequisite: Communication 105. The study of communication in organizations: theories of communication and their applications to organizations. Three hours each week.

COM 340. Communication Theory (3) Prerequisite: Communication 105 or consent of instructor. The course explores theoretical perspectives concerning how and why people communicate. Emphasis placed on a greater understanding of the human communication process. Three hours each week.

COM 341. Rhetorical Theory (3) Prerequisites: Communication 105, Communication 340 or consent of the instructor. Introduction to the basic classical and contemporary theories of rhetoric from Plato through the present. Three hours each week.

COM 345. Speech Writing (3). Prerequisite: Communication 105, English 102. The theory and practice of speech writing with special emphasis on writing speeches for others.

COM 365. The Broadcast Regulatory Process (3) Prerequisite: Communication 265, 268, or consent of instructor. Survey of broadcast history, law, politics, and regulation with emphasis on the roles of the Federal Communications Commission, the White House, Congress, courts, citizen's groups, and the broadcast industry itself in creating and enforcing broadcast regulations.

COM 390. Intercultural Communication (3) Prerequisite: Communication 105, Communication 220 or consent of instructor. Communication factors unique to interactions between members of different cultures, appropriate rhetorical and practical knowledge about the intercultural communication process, as well as an understanding of international communication. Three hours each week.

COM 415. Readers Theatre (3) Prerequisite: Communication 116. The application of oral interpretation techniques to group readings. Students will be involved in both technical and performance aspects of production. Three hours each week.

COM 421. Communication for Public Relations (3) Prerequisite: Any one of the following: Communication 265, 268, 275, 327, 340, 365, 465 or English 202. Principles of public relations, with special emphasis on those theories and skills relevant to the communication functions of businesses and non-profit organizations. Three hours each week.

COM 450. History of Rhetoric and Public Address (3) A survey of the development of rhetorical principles and style as evidenced by significant historical personalities and the literary genre of public address. Three hours each week.

COM 465. Mass Communications in Society (3) Prerequisite: Communication 265. A seminar encompassing the development of mass communications, the obligations of the press, radio and television, the government and the right to know, censorship, invasion of privacy and other effects of mass communications. Three hours each week.

COM 467. Broadcast Advertising and Audience Analysis (3) Prerequisite: Communication 265 or consent of instructor. Broadcast advertising and audiences from a theoretical and practical perspective. Mass communication theories applied in a practical setting as students conduct a major audience analysis for a mass media organization. Includes analysis and use of survey/research methodology.

COM 485. Senior Project (3)

COM 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of the department chairman.

COM 495. Seminar in Speech Communication (3) Prerequisite: Senior standing and consent of instructor. Special topics in communication which are not dealt with in other courses.

COM 498. Internship in Speech Communication (3-6) Prerequisite: Permission of Speech Communication faculty and senior status. A program of work and study conducted within an agency and/or setting which provides practical experience with observation of applications of theoretical concepts in Speech Communication. Open to qualified students with permission of the Speech Communication faculty.

COM 499. Honors Work in Communication (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492; 294 and 494, see explanation of p. 78.

CRIMINAL JUSTICE

(See Sociology and Anthropology)

DRAMA

(See Creative Arts)

EARTH SCIENCES

Dr. Harris, Acting Chairman. Dr. Ainsley, Dr. Cleary, Dr. Conner, Dr. Dockal, Dr. Hall, Dr. Huntsman, Dr. Kiefer, Dr. Laws, Dr. Metzger, Dr. Randall, Dr. Spyrou, Dr. Thayer, Dr. Zullo.

The Department of Earth Sciences offers concentrations in Geography and Geology which prepare the student for advance studies or for teaching, research and technical careers available to one who holds the baccalaureate degree.

Requirements for a concentration in Geography for the B.A. degree: Core requirements: Geography 110, 130, 140, 220, 270, 320, 325, 429, 495. Collateral requirements are Computer Science 121 and Statistics 205 or 215. In addition there are two options, described below, one of which a student must elect in order to complete the degree requirements. A "C" (2.0) or better average on all courses taken within the department.

Option 1.

This option provides a broad, flexible program to meet personal educational goals and interests including careers and graduate study in geography.

(a) Physical Geography: 7 hours selected from Geography 230, 332, 333, or 335.
(b) Economic and Urban Geography: 6 hours selected from Geography 312, 315 and 317.
(c) Applied Geography and Planning: 6 hours selected from Geography 322, 372, 375, and 378.
(d) Cultural Geography: 9 hours, including 3 hours in regional geography, selected from Geography 240, 255, 282, 350, 352, 382, and 385.

Option 2.

This option is designed specifically for students interested in pursuing careers and/or graduate study in planning and applied geography.

(a) Geography 312, 317, 333, and 335.
(b) Geography 496 or 498 and 6 hours selected from Geography 372, 375, 378.
(c) 6 hours selected from Geography 322, 350, 382, Economics 125, Political Science 207, 308, and Sociology 315, 385.

Geography Course Descriptions

(Department of Earth Sciences)

GGY 110. Economic Geography (3) Human economic activities, their location and relationships to physical and economic conditions of the environment. Three hours each week.

GGY 130. Introduction to Physical Geography (4) Spatial distribution of environmental elements and processes, including weather and climate, groundwater, soils, rocks, plate tectonics, landforms, and vegetation. Three lecture and two laboratory hours each week.

GGY 140. Introduction to Human Geography (3) Survey of the geography of human settlement patterns and activity throughout the world. Emphasis on relationships between physical environments and different facets of human culture, including population, resources, regional development, urban growth, and political, linguistic, and religious patterns. Three lecture hours each week.

GGY 220. Map Reading and Interpretation (3) Introduction to the fundamentals of using and understanding maps. Examination of location, scale, map projections, elevation and relief. Recognition of map symbols, shapes and patterns in the natural and cultural landscapes as represented on topographic maps. Interpretation of thematic maps and an understanding of computer aided mapping and geographic information systems. Two lectures and two laboratory hours each week.

GGY 230. Introduction to Weather and Climate (3) Examination of general climatic characteristics through space and time, especially as influenced by controls upon temperature, wind and moisture distributions, and by planetary, regional and local atmospheric disturbances. Three hours each week.

GGY 240. Population Geography (3) Prerequisite: Geography 140 or consent of instructor. A study of the spatial dimensions of population growth, density and movement and of the shifts in these patterns as they relate to changes in selected socio-economic and cultural phenomena. Three hours each week.

GGY 255. Historical Geography of the Middle East (3) Geographical, archaeological, historical and geological investigation of the physical environment and cultural landscapes that provided the settings for the evolution of the population, economics and cultures of Southwest Asia. Three hours each week.

GGY 270. Principles of Land Use Planning (3) Prerequisite: Geography 130 and 140 or consent of instructor. Introduction to planning techniques and to planning as a profession. Classification and analysis of spatial variations in land use patterns and development processes as they relate to the physical environment and human activities. Three hours each week.

GGY 282. Geography of North Carolina (3) Prerequisite: Geography 140 or consent of instructor. A survey of the physical and cultural landscapes of North Carolina with the emphasis on an understanding of the complex geographical variety that exists within a dynamic and growing southern state. Three hours each week.

GGY 312. Geography of Transportation (3) Prerequisite: Geography 110 or consent of instructor. Study of the structural elements of transportation systems and the spatial processes associated with their development. Three hours each week.

GGY 315. Industrial Geography (3) Prerequisite: Geography 110 or credit in economics or consent of instructor. Factors underlying the distribution, development and character of manufacturing activities and industrial regions. Emphasis is placed upon location theory. Three hours each week.

GGY 317. Urban Geography (3) Prerequisite: Credit in a social science or in history or consent of instructor. Analysis of the spatial distribution, growth, function and struc-

ture of urban places with emphasis on urban development and problems in the United States. Three hours each week.

GGY **320. Elementary Cartography (3)** Prerequisite: Geography 220. Techniques of drafting, map projection,and map designs; methods of data representations on maps. One lecture and four laboratory hours each week.

GGY **322. Aerial Photography and Remote Sensing (3)** Prerequisite: Geography 130, 220 or Geology 101. Introduction to the use of aerial photography and other remote sensing techniques to analyze topography, geology, vegetation and culture. Two lecture and three laboratory hours each week.

GGY **325. Quantitative Methods in Earth Sciences (3)** Prerequisite: Statistics 205 or 215. Use and interpretation of statistical techniques in geographic and geologic research. The course emphasizes problem identification, data collection and interpretation through assignments covering specific kinds of statistical methods. Three lecture hours each week.

GGY **332. Soils and Vegetation Geography (3)** Prerequisite: Geography 130. Global distribution of soils; soil-forming processes; principles underlying the distribution of plants in their terrestrial environments; methodology of vegetation sampling; introduction to principle field techniques and evaluation; description of modern global vegetation biomes and their development by physiographic, pedogenic, climatic, and evolutionary events of the past. Three hours each week.

GGY **333. Applied Climatology (4)** Prerequisite: Geography 130 or 230 or consent of instructor. The spatial distribution and character of climates, their relation to other elements of the environment and to human activities. Three lecture and two laboratory hours each week.

GGY **335. Introduction to Geomorphology (4)** Prerequisite: Geography 130 or Geology 101 or consent of instructor. Description and classification of landforms; analysis of the geologic, climatic and biologic factors involved in their formation; survey of geomorphic provinces of the United States. Three lecture and two laboratory hours each week.

GGY **350. Political Geography (3)** Prerequisite: Credit in a social science or in history or consent of instructor. Geographic factors in the development of nations and in contemporary national and international affairs. Three hours each week.

GGY **352. Historical Geography of the United States (3)** Prerequisite: History 201 or Geography 140 or consent of instructor. A study of the evolution of the cultural landscapes and the spatial patterns of the area that is now the United States. Examination of past geographies and of geographical change through time. Three hours each week.

GGY **372. Community and Regional Land Use Planning (3)** Prerequisite: Geography 270. Application of planning techniques to current urban and regional land use problems. Topics include spatial structure of cities and regions and emphasis is placed upon the visual-spatial qualities of communities and regions. Three hours each week.

GGY 375. Rural Land Use Planning (3) Prerequisite: Geography 270. Concepts of planning applied to the protection of open space in the face of increasing development demands and pressures. Topics include farmland retention, landscape assessment, land trusts, preservation and scenic easements, zoning techniques and land use plans. Three hours each week.

GGY 378. (History 378) Historic Preservation Planning (3) Prerequisite: Geography 270, or 352 or consent of instructor. An applied research course which deals with the procedures employed by federal, state and local agencies in locating, recording, restoring and preserving American architectural resources and material cultural heritage. Subjects examined include survey, documentation, and planning; historic districts; adaptive use; funding; legislation; and organizational roles. Three hours each week.

GGY 382. Regional Geography of the United states (3) Prerequisite: Geography 140 or History 202 or consent of instructor. A regional analysis of physical characteristics, resource base and human geography of the United States. Three hours each week.

GGY 385. Regional Geography of Europe (3) Prerequisite: Geography 140 or History 102 or consent of instructor. A regional analysis of the physical and cultural features of Europe. Three hours each week.

GGY 429. History and Philosophy of Geography (3) Prerequisite: Senior standing in geography. Development of geographic thought and comparative evaluation of current philosophies concerning the nature of geography. Three hours each week.

GGY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

GGY 495. Senior Seminar (1-3) Prerequisite: Senior standing in geography. May be repeated one time for credit. One to three hours each week.

GGY 496. Senior Thesis (2-2) Prerequisite: Senior standing in geography. A supervised senior thesis on a topic selected by the student, thesis advisor, and thesis committee. A written thesis, completed during a two semester period, and an oral defense are required.

GGY 498. Internship (3) Prerequisite: Senior standing in geography, recommendation of advisor and consent of the geography faculty. The student works a minimum of twelve hours per week for an outside agency or individual in a position that enables the student to utilize academic training in a practical field experience. A summary paper and an oral presentation before the geography faculty are required.

GGY 499. Honors Work in Geography (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

For 292 and 492; 294 and 494, see explanation on p. 78.

Requirements for a concentration in Geology for the B.A. degree: Geology 101, 102, 190, 201, 210, 231, 331, 341, Geography 335, and Geology 495. Collateral requirements are Chemistry (lecture and laboratory) 101 or (105, 106)-102. Mathematics 111-112 or 115, and a minimum of 7 hours selected from Biology, Chemistry, Computer Science, Geology, Geography, Mathematics or Physics. A "C" (2.0) or better average on all courses taken within the department and a "C" (2.0) or better average on all required courses above the 100 level in the department.

Requirements for a concentration in Geology for the B.S. degree: Geology 101, 102, 190, 201, 202, 231, 311, 312, 331, 341, and Geology 495. Collateral requirements are Chemistry (lecture and laboratory) 101-102, Mathematics 161-162, Physics 101-102 or 201-202, and a summer field course in geology offered by another institution. A "C" (2.0) or better average on all courses taken within the department and "C" (2.0) or better average on all required courses above the 100 level in the department. Students planning to attend graduate school are urged to take Computer Science 111, and French 101-102 or German 101-102.

Geology Course Descriptions

(Department of Earth Sciences)

GLY 101. **Physical Geology (4)** Study of the earth and the moon; constitution of the earth's crust weathering, erosional and depositional processes; mountain building forces and the earth's internal composition. Field trips. Three lecture and three laboratory hours each week.

GLY 102. **Historical Geology (4)** Prerequisite: Geology 101. Geologic history of the earth; methods of interpreting the past; ancient environments; development and evolution of life. Required field trips. Three lecture and three laboratory hours each week.

GLY 120. **(Environmental Studies 120) Environmental Geology (3)** Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

GLY 131. **Dinosaurs (2)** Study of the Dinosaurs and other Mesozoic vertebrates as illustrations of the basic principles of vertebrate paleontology. Emphasis is placed on identification, systematics, evolution, ecology and extinction of the Dinosaurs. Two hours each week.

GLY 150. **Introduction to Oceanography (3)** An introduction to the geology, physics, chemistry and biology of the ocean; instruments and techniques of the oceanography; resources of the ocean. Required field trips. Three hours each week.

GLY 190. **Methods in Geology (3)** Prerequisite: Geology 101; Corequisite Geology 102, introduction to various bibliographic, graphic, field, and laboratory method essential to geologic studies. Weekly projects and required field trips. Three hours each week.

GLY 201. Mineralogy (4) Prerequisite: Geology 101: Corequisite: Chemistry 101, including laboratory. Principles of chemical bonding in natural solids; crystal chemistry; physical conditions of mineral genesis; geologically significant mineral associations; crystallography; mineral identification. Required field trips. Three lecture and three laboratory hours each week. Fall.

GLY 202. Advanced Mineralogy (3) Prerequisite: Geology 201. The technique of mineral identification and analysis. Theory and application of the polarizing microscope and X-ray diffractometer. Introduction to the principles of the electron microprobe, X-ray fluorescence and atomic absorption. One lecture and four laboratory hours each week.

GLY 210. General Petrology (4) Prerequisite: Geology 201 or consent of instructor. A survey of the major igneous, sedimentary, and metamorphic rock groups. Emphasis is on classification, textural features, mode of occurrence, environments of origin and economic importance. Laboratory stresses rock identification and typical rock associations. Required field trips. Three lecture and three laboratory hours each week.

GLY 231. Invertebrate Paleontology (4) Prerequisite: Geology 102 or consent of instructor. History of fossil protistans and invertebrates with emphasis on the principles of paleontology, systematics and evolution, and on the use of fossils in stratigraphic correlation. Required field trips. Three lecture and three laboratory hours each week.

GLY 311. Igneous and Metamorphic Petrology (4) Prerequisite: Geology 202. Theories of genesis of the major igneous and metamorphic rocks in the light of chemistry, mineralogy, structure and texture, field associations, and experimental data. The relationship between igneous and metamorphic processes and crust-mantle tectonic activity. Required field trips. Three lecture and three laboratory hours each week.

GLY 312. Sedimentary Petrology (4) Prerequisite: Geology 202. Introduction to the identification, classification and origins of sediments and sedimentary rocks. Emphasis is placed on physical processes controlling sedimentation and study of modern and ancient depositional environments. Field trips. Three lecture and three laboratory hours each week.

GLY 331. Stratigraphy (4) Prerequisite: Geology 231. An introduction to the description, organization and classification of layered rocks. Emphasis is placed on the practical use of stratigraphic principles in elucidating earth history. Field trips. Three lecture and three laboratory hours each week.

GLY 341. Structural Geology (4) Prerequisite: Geology 201 and Mathematics 112 or 115. Introduction to the mechanics, fabrics, and geometry of rock deformation, including stress-strain relationships, folds and folding, and faulting and fracturing of rocks. Selected regional examples introduce and test concepts and theories of orogenic rock mechanisms and tectonics. Required field trip. Three lecture and three laboratory hours each week.

GLY 391. Appalachian Geology (1) Corequisite: Geology 331 or 341. Field study of the structure, stratigraphy, rocks, and paleontology of the Paleozoic System of the

Appalachian geosyncline. Introduction to sample collection, field mapping procedures, and methods of data analysis. Three field days and colloquium. Spring. (Fees)

GLY 392. Coastal Plain Geology (1) Corequisite: Geology 331. Field analysis of depositional patterns and paleontology of Cretaceous and Cenozoic units of the southeastern Atlantic Coastal Plain. Introduction to methods of litho- and biostratigraphic correlation, sampling techniques, and sample analysis. Three field days and colloquium. Fall. (Fees)

GLY 393. Coastal Processes (1) Prerequisite: Geology 101. Field examination of the depositional and erosional processes and materials in the marshes, estuaries and barrier islands of the Carolinas and Georgia. Introduction to basic techniques used by coastal researchers in field measurements, sample retrieval and data analysis. Three field days and colloquium. Spring. (Fees)

GLY 394. Piedmont Geology (1) Prerequisite: Geology 102. Corequisite: Geology 201 or 341, or consent of instructor. Field examination of the petrology, degree(s) of metamorphism, and structural style(s) of the various belts of rock in the crystalline Appalachians. Observations permit regional tectonic syntheses for the Piedmont. Three days and colloquium. Fall. (fees)

GLY 480. Advanced Topics in Geology (1-3) Prerequisite: Junior standing in department and consent of instructor. Study of selected topics in geology that are not considered in detail in regular course offerings. Examples of specific topics are plate tectonics, seismology, depositional systems, groundwater hydrology, geochronology, and advanced paleontology. Taught on demand. More than one topic may be taken for credit (maximum 6 hours).

GLY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

GLY 495. Senior Seminar (1-3) Prerequisite: Senior standing with a concentration in Geology or consent of instructor. May be repeated one time for credit. One to three hours per week.

GLY 499. Honors Work in Geology (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

For 292 and 492; 294 and 494, see explanation on p. 78.

ENGINEERING

(See Pre-Professional Programs for Requirements)

Engineering Course Descriptions

(Department of Earth Sciences)

EGN 111. Engineering Graphics (3) Fundamentals of drafting and use of instruments, lettering, geometric constructions, orthographic projection, auxiliaries, sections, fas-

teners, dimensioning, freehand sketching; axonometric, oblique, and perspective views and fundamentals of working drawings. Basic construction and topographic drafting, inking, methods of reproduction; descriptive geometry, graphical solution of spatial point, line and plane problems. One lecture and three laboratory hours each week.

EGN 211. Land Surveying (3) Prerequisite: Mathematics 111 or consent of instructor. The elements of plane surveying; basic instrument nomenclature, use and adjustment methods of surveying plots of land using the metes and bounds system; and introduction to the public land surveys; methods of basic surveying computation involving horizontal, vertical and angular measurements; legal aspects of surveying (legal term definitions, recording processes, federal, state and local laws and codes); basic methods of subdivision. Two hours of lecture and three hours of laboratory each week.

EGN 212. Route Surveying (3) Prerequisite: Engineering 211 or consent of instructor. The elements of plane route surveying to include the operations involved in horizontally and vertically aligning roadways (highways and railroads) and the computations involved in the various operations; horizontal and vertical curves; procedures peculiar to road, canals, transmission lines, pipelines, storm and sanitary sewers, urban utility surveys, along with the incidental storm drainage design and layout for certain roadway situations. Two hours of lecture and three hours of laboratory each week.

EGN 221. Geodetic Surveying (3) Prerequisite: Engineering 211. The application of many of the principles of geodesy for the purpose of transitioning from surveys on a plane to surveys on an oblate spheroid (Earth). The use of spherical trigonometry and some of the calculus in geodetic surveys; the N.C. State Plane Coordinate System; some experience in electronic distance measuring; methods of computation and field methods of triangulation, trilateration and traverse; astronomical observations and computations involved to determine latitude, longitude and azimuth (direction) from one point to another. Two hours of lecture and three hours of laboratory each week.

EGN 222. Topographic Surveying and Mapping (3) Prerequisite: Engineering 211. The field and office processes necessary to prepare topographic and hydrographic maps of a specified area. The many methods of data acquisition over land and water areas are examined and practiced during the course to include: radial line surveys, x.y.z. coordinate surveys, aerial surveys and the plane table. The actual preparation of a "live" map from field survey to finished inked map is a primary part of the course. Two hours of lecture and three hours of laboratory each week.

EGN 321. Engineering Statics (3) Prerequisite: Physics 201 and corequisite: Mathematics 162. The study of engineering statics using vector calculus. Basic concepts, forces and equilibrium analysis, distributed forces, centroids, moments of inertia, virtual work, applications to machines, structures, and systems. Three hours each week.

EGN 322. Engineering Dynamics (3) Prerequisite: Engineering 321 and corequisite: Mathematics 213. The study of engineering dynamics using vector calculus. Equations of motion, kinematics, kinetics of mass points and systems of mass points, kinetics and kinematics of rigid bodies. Three hours each week.

ENGLISH

Dr. Wentworth, Chairman. Ms. Axley, Dr. Byington, Dr. Clifford, Dr. Collier, Dr. Corbett, Dr. Dodson, Dr. Ellis, Mr. Evans, Mr. Fort, Dr. Gould, Ms. Huntley-Johnston, Ms. Jones, Mr. Lander, Ms. McDonald, Dr. MacLennan, Dr. Noland, Dr. Parish, Mrs. Pearsall, Dr. Rosselot, Dr. Rugoff, Dr. Schweninger, Dr. D. Seiple, Dr. J. Seiple, Dr. Stokes, Dr. Sullivan, Dr. Veit, Dr. Walker, Mrs. Wasson, Dr. Waxman, Mr. Zinkus.

The department of English offers a basic preparation in literature, language, and composition, and then special concentrations in Literature and Language, Professional and Creative Writing, and Teacher Preparation.

Core requirements for a concentration in English for the B.A. degree: English 211-212, 223-224, 306, 320 or 323, and an additional writing course. Students with an emphasis in Literature and Language are required to take an additional 15 hours in literature and language courses, including one senior seminar, English 332 or 333, and three elective hours (no more than 6 of the 21 hours may be at the 200 level). Students with an emphasis in Professional and Creative Writing are required to take an additional 12 hours in writing courses (no more than 6 hours at the 200 level), 6 hours in literature courses, including one seminar, and 3 hours in a language or additional writing course.

Requirements for a concentration in English for the B.A. degree with Teacher Certification:

The core requirements plus English 225 or 226, or 381, 382, 495 (Seminar), and 3 elective hours (300 level or above). In the core, the additional writing course must be English 200 and the language course must be English 320. Students will be urged to choose Communication 105 or 116 as part of the Basic Studies requirements. **Collaterals:** 18 hours in another discipline or disciplines selected by student and advisor to provide optimum reinforcement for the student's academic objectives. A "C" or better must be achieved in English courses taken to satisfy requirements of the major.

English Course Descriptions

ENG 100. Foundations of Composition (0) Intensive writing practice and instruction for students needing preparation in the basics of composition. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

ENG 101. Composition (3) Prerequisite: Evidence of competence on the English Placement Test or a grade of a "C" in English 100. An introduction to college-level composition. Extensive practice in the techniques of invention, development, organization, editing, and revision, with emphasis on narrative, descriptive, and expository forms appropriate to everyday personal, business, and academic writing. Three hours each week.

ENG 102. Composition (3) Prerequisite: English 101. Continued practice in the composing process, with emphasis on argumentation and research. Frequent projects in gathering, analyzing, and documenting information from outside sources. Three hours each week.

ENG 110. Introduction to Literature (3) Study of three literary genres—poetry, drama, and short fiction—in terms of basic components and structures. Three hours each week.

ENG 200. Foundations of Creative Writing (3) Prerequisite: English 102 or consent of instructor. Instruction in creative writing as a preparation for teaching on the primary or secondary levels. Includes writing exercises in three genres—poetry, fiction, and drama. Intended primarily for prospective teachers. Three hours each week.

ENG 201. Intermediate College Writing (3) Prerequisite: English 102. Instruction in composing strategies to strengthen organizational, syntactical, and editing skills. Written projects relate to the academic interests of each student. Three hours each week.

ENG 202. Introduction to Journalism (3) Prerequisite: English 102. Introduction to news writing and newspaper organization. Includes writing news stories, editorials, features, interviews, and profiles. Three hours each week.

ENG 203. Writing About Literature (3) Prerequisite or corequisite: English 102. Practice ways to write about literature in forms ranging from personal journals to in-class responses to critical essays; includes reading and instruction in literature. Three hours each week.

ENG 207. Creative Writing (Fiction) (3) Prerequisite: English 102 or consent of instructor. Instruction in writing fiction, including critical evaluation by instructor and class of students' original works. Students also critique and relate to their own work the fiction of relevant professional authors. Three hours each week.

ENG 208. Creative Writing (Poetry) (3) Prerequisite: English 102 or consent of instructor. Instruction in writing poetry, including critical evaluation by instructor and class of students' original works. Students also critique and relate to their own work the poetry of relevant professional poets. Three hours each week.

ENG 210. Mythology (3) Prerequisite: English 102. The major mythological systems of Western society—Greek, Roman, and Norse. Mythology of other parts of the world and related material are also considered. Three hours each week.

ENG 211, 212. Great British Writers I & II (3,3) Prerequisite or corequisite: English 102. ENG 211: Writings before 1800; ENG 212: Writings since 1800. Three hours each.

ENG 219. General Fiction (3) Prerequisite: English 102. A thematic approach to fiction for students who enjoy extensive readings of current novels. Three hours each week.

ENG 220. Introduction to the English Language (3) Prerequisite: English 102. A non-technical introduction to the structure, history, and contemporary use of the English language. Provides a thorough background in English grammar. Three hours each week.

ENG 223, 224. American Literature I & II (3,3) Prerequisite or corequisite: English 102. ENG 223: The literature of colonial and early America from 1607 to 1820 and of the Romantic era (1820-1855) . ENG 224: The literature of American Realism (1855-1900) and the twentieth century (1900-1960). Three hours each week.

ENG 225, 226. World Literature I & II (3,3) Prerequisite or corequisite: English 102. Representative works of world literature (excluding British and American authors) emphasizing, but not limited to, the western literary tradition. ENG 225: Work from ancient times to about 1500; ENG 226: 1500 to the twentieth century. Three hours each week.

Eng 230. Women in Literature (3) Prerequisite or corequisite: English 102. Twentieth-century literature by or about women. Focus on changes in images and roles of women . Includes fiction, poetry, and essays. Three hours each week.

ENG 232. Black American Writers (3) Prerequisite or corequisite: English 102. Study of representative literature written by Black American writers from slavery to the present, including writers such as Wheatly, Douglass, Hughes, Wright, Ellison, and Alice Walker. Three hours each week.

ENG 233. The Bible as Literature (3) Prerequisite or corequisite: English 102. Study of types of Biblical literature, including narratives from the Old and New Testaments, sermons, parables, and poetry. Attention is given to the Bible as literature in itself and as a source of symbols in allusions from Western culture. Three hours each week.

ENG 235. Literature and Film (3) Prerequisite or corequisite: English 102. Study of selected literary works that have been transformed into films. Consideration is given to each work in its original literary form as well as to the changes it has undergone in cinematic adaptation. Work treated may vary from semester to semester. Three hours each week.

ENG 240. The Supernatural in Literature (3) Prerequisite or corequisite: English 102. Types of supernatural phenomena in literature, including psychic experiences, the occult, ghosts, werewolves, and vampires. Emphasis on British and American literature. Three hours each week.

ENG 241. Detective Fiction (3) Prerequisite or corequisite: English 102. Major writers of detective fiction from Poe to the present. Development of the mystery form and the evolution of the detective as hero in British and American literature. Three hours each week.

ENG 242. Science Fiction (3) Prerequisite or corequisite: English 102. Study of special conventions that distinguish science fiction from other types of literature (such as fantasy). Considers the contribution of science fiction to the understanding of such current concerns as overpopulation, biological change, automation, and the threat of nuclear war. Works by such authors as Wells, Asimov, Heinlein, Clarke, Bester, and LeGuin. Three hours each week.

ENG 243. Fantasy Literature (3) Prerequisite or corequisite: English 102. Study of nonrational phenomena in literature and of the relationship of fantasy to reality. Considers phenomena such as magic and other worldly creatures in settings that distinguish fantasy from other types of literature, such as science fiction. Three hours each week.

ENG 244. Literature of the Sea (3) Prerequisite or corequisite: English 102. Study of nautical literature, focusing on varying perceptions of the sea; major themes in

nautical literature; uses of the sea as setting, symbol, and metaphor. Three hours each week.

ENG 250. Introduction to Folklore (3) Prerequisite or corequisite: English 102. A definition and survey of the most common forms of folklore, including folk speech, narratives, music art, customs, and beliefs, with an emphasis upon the relevance of these materials to the study of literature, history, education, art, the social sciences, and other disciplines. Three hours each week.

ENG 290. Themes in Literature (3) Prerequisite or corequisite: English 102. An interdisciplinary study of a significant theme, such as war and peace, justice, love, youth and age, focusing primarily on literary works but also drawing on sources from other fields, including art, music, and history. May be repeated once under a different subtitle. Three hours each week.

ENG 300. Introduction to Technical Writing (3) Prerequisite: English 102. Types of writing encountered in professions: resumes, memos, correspondence, proposals, progress reports, technical reports, and oral presentations of technical reports; emphasis on style, form, and organization; adaptable to the student's major field of study. Three hours each week.

ENG 301. Technical Report Writing (3) Prerequisite: English 300 or consent of instructor. Theory and practice of technical writing: emphasis on mid-sized and longer reports, including proposals and feasibility studies, journal articles, professional papers, and research studies, and oral presentation of technical reports; adaptable to the student's major field of study. Three hours each week.

ENG 302. Journalism Workshop (3) Prerequisite: English 202 or consent of instructor. Study of advanced forms of newswriting, such as *Wall Street Journal* style, news magazine format, and "New Journalism." Techniques applied to writing and editing the weekly campus newspaper, *The Seahawk*. Three hours each week.

ENG 304. Writing for Teachers (3) Prerequisite: English 102. Instruction in writing for teachers of all school subjects (K-12). Forms of exposition and persuasion appropriate to teachers; consideration given to learning and composition theory, the composing process, theories of rhetoric, evaluation, writing development. Three hours each week.

ENG 306. Essay Writing (3) Prerequisite: English 102. Instruction in all major essay modes: narration, description, exposition, critical analysis, and persuasion. Emphasis on mastering prewriting, writing, and revision strategies; attention to developing individual style. Appropriate for students in all majors. Three hours each week.

ENG 307. Advanced Creative Writing: Fiction (3) Prerequisite: English 207 or consent of instructor. Instruction in advanced techniques of writing fiction. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication. Three hours each week.

ENG 308. Advanced Creative Writing: Poetry (3) Prerequisite: English 208 or consent of instructor. Instruction in advanced techniques of writing poetry. Further develop-

ment of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication. Three hours each week.

ENG 310. Theory and Practice of Editing (3) Prerequisite: English 102. An advanced writing course, focusing on revising, editing, and copy editing. Techniques and strategies for getting prose ready for publication will be explored. Extensive practice in editing professional and student samples. Three hours each week.

ENG 311. Professional Magazine Writing (3). Prerequisite: English 102. Writing of non-fiction prose intended for publication in magazines, newspapers, and journals. Three hours each week.

ENG 315. Special Topics in Writing (3) Prerequisite: English 102. A focused study of a particular subject in composition/rhetoric. Topics may vary from semester to semester, but may include classical or medieval rhetoric; the study of style; the writing of grants; the rhetoric of visualization, art, music, or photography; or the analysis of propaganda and advertisements; theories of writing. Three hours each week.

ENG 320. Introduction to Linguistics (3) Prerequisite: English 102. Important topics in the study of language, including phonological, syntactic, and semantic systems; language change; language acquisition by children; theories of language origin; and animal "language." Three hours each week.

ENG 321. Structure of the English Language (3) Prerequisite: English 102. Study of the grammatical structure of the English language and the process by which we create and comprehend English sentences. Emphasis on recent syntactic models. Three hours each week.

ENG 322. Semantics (3) Prerequisite: English 102. The study of language as it affects our thinking and behavior; language and prejudice; the language of advertising, propaganda, science, and poetry; slanting, euphemisms, jargon, connotations, and abstraction. Three hours each week.

ENG 323. History of the English Language (3) Prerequisite: English 102. The development of the English language from Old English to the present; changes in sounds, vocabulary, syntax, meaning, and spelling; formation of American dialects. Three hours each week.

ENG 332. Shakespeare I (3) Prerequisite: English 102. Study of eight to ten plays and selected sonnets (written before 1600). Included are tragedies, comedies, and histories. Three hours each week.

ENG 333. Shakespeare II (3) Prerequisite: English 102. A study of eight to ten plays written after 1600. Included are tragedies, comedies, and histories. Three hours each week.

ENG 335. Restoration and Eighteenth Century Literature (3) Prerequisite: English 102. Major writers and types of literature between 1600 and 1800. Includes works by Dryden, Swift, and Pope, as well as examples of the periodical essay, early novel, and drama. Three hours each week.

ENG 336. British Romanticism (3) Prerequisite: English 102. Selected poetry and prose of the Romantic period, 1783-1837. Emphasis on developments in poetry, in the role of the artist, and Romantic critical theory. Includes such writers as Blake, Byron, Wordsworth, Coleridge, Keats, Shelley, Austen, and Scott. Three hours each week.

ENG 337. Victorian Literature (3) Prerequisite: English 102. English literature from 1832 to 1901. Cultural upheavals as reflected in poetry and prose by such authors as Tennyson, Browning, Arnold, Pater and the Pre-Raphaelites, Dickens, Eliot, and Thackeray. Three hours each week.

ENG 338. British Literature 1900-1950 (3) Prerequisite: English 102. Study of a broad range of writings from the first half of the twentieth century. Includes works by British authors such as Conrad, Lawrence, Joyce, Woolf, Yeats, Shaw, and Auden. Three hours each week.

ENG 350. American Romanticism (3) Prerequisite: English 102. Major writers in the American Renaissance, from 1820 to the Civil War, including Whitman, Emerson, Thoreau, Poe, Hawthorne, and Melville. Three hours each week.

ENG 351. American Realism (3) Prerequisite: English 102. Major writers in the period of emerging industrialism and urbanization after the Civil War, including Dickinson, Twain, James, Crane, and Dreiser. Three hours each week.

ENG 352. American Literature 1900-1950 (3) Prerequisite: English 102. Study of a broad range of writings from the first half of the twentieth century. Includes works by American authors such as Eliot, Pound, Stevens, O'Neill, Hemingway, Fitzgerald, Porter, and Faulkner. Three hours each week.

ENG 353. Southern American Literature (3) Prerequisite: English 102. Study of nineteenth and twentieth century Southern literature, ranging from Southwestern humor sketches written before the Civil War to recent literature by such authors as Welty, O'Connor, Faulkner, Ellison, Percy, and Williams. Three hours each week.

ENG 354. North Carolina Writers (3) Prerequisite: English 102. Short stories, novels, and poetry by North Carolina writers. Several works reflect upon the life and time of the state. Includes such writers as Charles Chesnutt, O. Henry, Thomas Wolfe, Randall Jarrell, and Gail Godwin. Three hours each week.

ENG 355. Ethnic Literature of the United States (3) Prerequisite: English 102. Literature of various American ethnic groups, with emphasis on Afro-American, Native American, Hispanic American, and Asian American literature. Three hours each week.

ENG 361. Studies in the Short Story (3) Prerequisite: English 102. Types of the short story, with emphasis upon the features and development of the genre. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 362. Studies in the Novel (3) Prerequisite: English 102. Types of the novel, with emphasis upon the features and development of the genre. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 364. Studies in Poetry (3) Prerequisite: English 102. Major types of poetry, with emphasis upon their form, style, and interpretation. Poems from a variety of periods, authors, and traditions. Three hours each week.

ENG 365. Studies in Drama (3) Prerequisite: English 102. A variety of plays representing tragedy, comedy, and modern forms. Works from a variety of periods, authors, and traditions with some attention to dramatic criticisms. Three hours each week.

ENG 371. European Literature 1900-1950 (3) Prerequisite: English 102. Study of a broad range of writings from the first half of the twentieth century. Includes Continental authors such as Kafka, Hesse, Camus, Rilke, Brecht, Akhamatova, and Pasternak. Three hours each week.

ENG 372. Contemporary Literature (3) Prerequisite: English 102. Literature since 1950. Includes such movements and themes as confessional and beat poetry, theater of the absurd, alienation, pop culture, and experimentation. Three hours each week.

ENG 373. The Female Tradition in Literature (3) Prerequisite: English 102. Study of literary works by nineteenth-century women. Examines evolving women's literary criticism, and distinctly female uses of language in literature. Three hours each week.

ENG 380. Literature for Children (3) Prerequisite: English 102. Exploration of children's books in several genres. Intended for present and future parents and teachers of grades 4-9. Three hours each week.

ENG 381. Literature for Young Adults (3) Prerequisite: English 102. An exploration of various genres appropriate for high school students. Intended for present and future parents and teachers of adolescents. Three hours each week.

ENG 382. Varieties of Literary Response (3) Prerequisite: English 102. A range of written and oral responses to poetry, fiction, and drama. Student participation in such approaches as role-playing, collaborative problem-solving, dramatization, visualization, and parody. Three hours each week.

ENG 430. The Age of Chaucer (3) Prerequisite: English 102. A survey of works written in medieval England. Included are *The Canterbury Tales,* selections from Chaucer's other works, and representative works in such genres as chronicle, biography, epic, romance, dream vision, and drama. Three hours each week.

ENG 431. The Age of Elizabeth (3) Prerequisite: English 102. English literature in the sixteenth and early seventeenth centuries. Works studied include poetry by Spenser and Shakespeare, plays by Marlowe and Jonson, and prose by More and Sidney. Three hours each week.

ENG 432. The Age of Milton (3) Prerequisite: English 102. Emphasis on the works of Milton. Also includes works by Donne, Herbert, and Bacon. Three hours each week.

ENG 462. Studies in the Novella (3) Prerequisite: English 102. Types of the novella or short novel, with emphasis upon its distinctive features and development as a genre. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 463. Studies in Non-Fiction (3) Prerequisite: English 102. Types of non-fiction prose, including biography, autobiography, memoirs, journals, and various forms of essay. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 490. Special Topics in Literature (3) Prerequisite: English 102. The study of a selected theme, movement, period, influence, or genre. Content varies from semester to semester. May be repeated once under a different subtitle. Three hours each week.

ENG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ENG 495. Seminar (1-3) Prerequisite: Junior or senior standing or consent of the chairman. Intensive study of a topic in literature, language, or writing. Emphasis upon individualized work, which may include reports, a longer research project, and appropriate bibliography assignments. Classes limited to fifteen. Required of English majors in the junior and senior year. May be repeated once under a different subtitle.

ENG 499. Honors Work in English (2-3) Prerequisite: Eligibility for honors program. Independent study for honors student.

For 292 and 492; 294 and 494, see explanation on p. 78.

ENVIRONMENTAL STUDIES

(Interdepartmental)

Dr. Andrews, Coordinator. Participating disciplines: Anthropology, Biological Sciences, Chemistry, Earth Sciences, Economics, Mathematical Sciences, Physics, Political Science, Psychology, and Sociology.

Requirements for a concentration in Environmental Studies for the B.A. degree: Core: (1) Environmental Studies 195, 495; Statistics 205 or 215, and Computer Science 111 or 121. (2) One course from each of four disciplines, selected from: Chemistry 235, 277; Physics 105; Biology 205, 206; Geology 101, 120; Geography 130. (3) One course from each of three disciplines, selected from: Political Science 304, 308; Anthropology 309; Psychology 370 (EVS 370); Economics 325 (EVS 325), 328.

Specialization: A disciplinary concentration requiring a minimum of 20 hours chosen from the approved list of courses in one of the following: Biological Sciences, Chemistry, Earth Sciences, Economics, Marine Science, Mathematical Sciences, Physics, Political Science, Psychology, Sociology.

Approved courses for each discipline are listed below. Courses taken to fulfill core requirements may not count toward the specialization. A "C" or better average on courses taken in the area of specialization is required.

BIOLOGICAL SCIENCES: BIO 316, 335 with lab, 345 or 347 or 355, 356, 365, 366, 375, 425, 440, 465, 466, 470, 475, 480, 491.

CHEMISTRY: CHM 211-212 with labs, 235 with lab, 277, 315-316, 321 with lab or 325 with lab, 435 with lab, 445, 465, 475, 476, 485, 491.

EARTH SCIENCES: (Geology emphasis) GLY 101, 102, 120, 201, 210, 331, 341, 391. Geography emphasis): GGY 110, 130, 140, 270, 320, 322, 325, 335, 372, 375. (Marine cience emphasis): GLY 150, 391; GGY 230, 322, 333, 335.

ECONOMICS: ECN 320 or 321, 322, 326, 324 or 327, 426, 427, 428, 495; FIN 331.

MARINE SCIENCE: GLY 150; GGY 333; BIO 345, 362, 365 or 481, 366, 457, 458, 62, 468, 472; CHM 475.

MANAGERIAL SCIENCE; BL 361; MGT 350, 351, 356, 358; PDS 313, 314; MKT 340.

MATHEMATICAL SCIENCES: MAT 161, 162, STT 262, and at least 14 additional hours hosen from STT 362 (replaces STT 205 or 215 requirement), MAT 261, 325, 335, 361, 66, 367, 415, 425, 435, 436, 461, 462, 463, 465, 471.

PHYSICS: PHY 201-202 (corequisite MAT 161-162), 255, 260, 321, 335, 455, 491 environmental research project); PHY 170 is recommended as an elective.

POLITICAL SCIENCE: PLS 111, 210, 211, 304, 307, 308, 309, 405, 406.

PSYCHOLOGY: PSY 336, 355, 365, 370, 410, 412, 456, 457, 465.

SOCIOLOGY: ANT 205, 206, 207, 302, 304, 305, 309, 322; SOC 230, 305, 315,316, 35.

Environmental Studies Course Descriptions

(Interdepartmental)

VS 120. **(Geology 120) Environmental Geology (3)** Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

VS 195. **Introduction to Environmental Studies (3)** Interdisciplinary introduction to the scope and application of environmental studies. Emphasis will be placed on an integrated analysis of environmental principles and discussions centering on current environmental problems. Three hours each week.

VS 316. **(Sociology 316) Human Ecology (3)** Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on social evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and related configuration of human communities. Three hours each week.

VS 325. **(Economics 325) Environmental Economics (3)** Prerequisite: Economics 125 or 221 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and technological

externalities as determinants of market failure; institutional alternative involving economic incentives. Three hours each week.

EVS 370. (Psychology 370) Environmental Psychology (3) Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment. Three hours each week.

EVS 490. Senior Project (1-6) Prerequisite: Senior standing and permission of instructor. A research project and seminar under the supervision of a committee of environmental studies faculty. The project should involve the investigation of a current problem in the Environmental Studies field, and the preparation of a written report on the findings.

EVS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of the Environmental Studies Coordinator.

EVS 495. Seminar in Environmental Studies (3) Prerequisite: Senior standing. Synthetic approach to the study of Environmental Science. Development of the "holistic" view of the environment, its interrelationship with science, technology, and society in a seminar format.

EVS 499. Honors Work in Environmental Studies (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492; 294 and 494, explanation on p. 78.

FOREIGN LANGUAGES AND LITERATURES

Dr. McNab, Chairman. Dr. Beeler, Dr. Deagon, Dr. Lapaire, Mr. Lowe, Dr. J. Mount, Dr. T. Mount, Dr. Parra, Dr. Perez, Dr. Sparks, Mrs. Stites, Mrs. Toplin, Dr. Woodhouse.

A student who offers two high school units in French, German or Spanish, who wishes to continue the study of the same language, will normally begin at the intermediate level. However, a student whose placement test scores and high school grades are not satisfactory will be placed in and granted credit for the elementary level. A student who offers three or more high school units in French, German, or Spanish, and whose placement test scores are sufficiently high, may gain admission to the 300 level courses in the language.

The Department of Foreign Languages and Literatures offers the B.A. degree in French or Spanish.

Requirements for a concentration in French for the B.A. degree: Completion of all 300 level courses in French and at least six credit hours at the 400 level, only three of which may be obtained by means of a French 491. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Languages 305: History 101 and 102, one course in English literature; and one additional foreign through the intermediate level. A student with a second concentration is exempt from the second language collateral.

French Course Descriptions

(Department of Foreign Languages and Literatures)

FRH 101-102. Elementary French (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken French; reading, writing, and basic conversation. Three hours each week. Fall and Spring.

FRH 105. French for Tourists (3) General interest course, but designed specifically for those planning to travel in a French-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week.

FRH 201-202. Intermediate French (3-3) Prerequisite: French 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion and others. Oral discussions to enable the student to apply his knowledge of the language. Brief explanations of grammatical points when necessary. Three hours each week.

FRH 305. Conversation and Composition (3) Prerequisite: French 202 or equivalent. Intensive training in spoken and written French. Three hours each week.

FRH 306. Advanced Grammar (3) Prerequisite: French 202 or equivalent. Comparative grammar and translation; required of those preparing to teach at the high school level. Three hours each week.

FRH 307. Phonetics (3) Prerequisite: French 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those preparing to teach at the high school level. Three hours each week.

FRH 311, 312. French Civilization (3,3) Prerequisite: French 202. Geographical, historical, and cultural aspects of France. 311: From prehistoric times to the French Revolution, 312: From the French Revolution to the present. Three hours each week.

FRH 321, 322. Survey of French Literature (3,3) Prerequisite: French 202. Extensive readings covering the main currents of French literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. Three hours each week.

FRH 336. Explication De Texte (3) Prerequisite: French 305 or equivalent. Training in French textual criticism; oral and written reports. Three hours each week.

FRH 405. Advanced Conversation and Composition (3) Prerequisite: French 305 or equivalent. Emphasis on oral French, essay writing and translation. Recommended for students preparing for teaching. Three hours each week.

FRH 425. French Literature of the Sixteenth Century (3) Prerequisite: French 322 or equivalent. Major writers of the Renaissance: Rabelais, Ronsard, Du Bellay, Montaigne, and others; oral and written reports. Three hours each week.

FRH 426. French Literature of the Eighteenth Century (3) Prerequisite: French 322 or equivalent. Major writers of the French Enlightenment: Montesquieu, Voltaire, Diderot, Rousseau and others; oral and written reports. Three hours each week.

FRH 430. The French Novel of the Twentieth Century (3) Prerequisite: French 322. Reading, discussion and analysis of representative works of Proust, Gide, Malraux, Sartre, Camus, and others; oral and written reports. Three hours each week.

FRH 435. The Nineteenth Century French Novel (3) Prerequisite: French 322. Reading, discussion and analysis of major novels; romanticism, realism and naturalism. Three hours each week.

FRH 436. French Classicism (3) Prerequisite: French 322. Reading, discussion and analysis of representative works with emphasis on dramatic literature of the 17th century: Corneille, Racine, and Moliere. Three hours each week.

FRH 437. French Lyric Poetry from Villon to Baudelaire (3) Prerequisite: French 322 or equivalent. Major lyric forms from the Middle Ages to the 19th century; oral and written reports. Three hours each week.

FRH 438. Masterpieces of French Drama (3) Prerequisite: French 322 or equivalent. The theatre in France from the Renaissance to modern times. Representative texts; oral and written reports. Three hours each week.

FRH 439. Masterpieces of French Prose Fiction (3) Prerequisite: French 322 or equivalent. Representative works of imaginative French Prose from the 17th century to the present; oral and written reports. Three hours each week.

FRH 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

FRH 495. Seminar in French Literature (1-3) Prerequisite: French 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentation, reports, discussions.

FRH 499. Honors work in French (2-3) Prerequisite: Senior standing and eligibility for honors program. Independent study for honor students.

Requirements for a concentration in Spanish for a B.A. degree: Spanish 305, 306, 307, 311, 312, 321, 322, and at least two courses on the 400 level, only three of which may be obtained by means of Spanish 491. A "C" or better grade in each course taken in the area of concentration, or better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Languages 305, History 101 and 102, one course in English literature, and one additional foreign through the intermediate level. A student with a second concentration is exempt from the second language collateral.

Spanish Course Descriptions

(Department of Foreign Languages and Literatures)

SPN 101-102. Elementary Spanish (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken Spanish; reading, writing and basic conversation. Three hours each week.

SPN 105. Spanish for Tourists (3) General interest course, but designed specifically for those planning to travel in a Spanish-speaking country. Emphasis on practical com-

munication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week.

SPN 201-202. Intermediate Spanish (3-3) Prerequisite: Spanish 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion and others. Oral discussion to enable the student to apply his knowledge of the language. Brief explanation of grammatical points when necessary. Three hours each week.

SPN 209. Spanish Literature in Translation (3) Study of representative works from the literature of Spain. Reading and class discussions in English. Three hours each week.

SPN 210. Spanish-American Literature in Translation (3) Study of representative works from the literature of Spanish America. Readings and class discussion in English. Three hours each week.

SPN 211. Spain Today (3) An examination of the institutions and social fabric of contemporary Spain as they evolved from traditional roots, including units on history, politics, regional culture, literature, music, art, customs and economic resources. Readings and class discussions in English. Three hours each week.

SPN 212. Latin American Today (3) An examination of the institutions and social fabric of contemporary Latin American as they evolved from traditional roots, including units on history, politics, indigenous cultures, literature, music, art, customs, and economic resources. Readings and class discussions in English. Three hours each week.

SPN 304. Business Spanish (3) Prerequisite: Spanish 202 or equivalent. Designed for students who need familiarization with the terminology necessary for the fields of economics, business, accounting, natural sciences and others. Business correspondence in Spanish and the currency systems of the Spanish-speaking countries are included. Three hours each week.

SPN 305. Conversation and Composition (3) Prerequisite: Spanish 202 or equivalent. Intensive training in spoken and written Spanish. Three hours each week.

SPN 306. Advanced Grammar (3) Prerequisite: Spanish 202 or equivalent. Grammatical forms and usage; required of those who plan to teach at the high school level. Three hours each week.

SPN 307. Phonetics (3) Prerequisite: Spanish 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those who plan teach at the high school level. Three hours each week.

SPN 311, 312. Spanish and Spanish-American Civilization (3,3) Prerequisite: Spanish 202 or equivalent, Geographical, historical and cultural aspects of Spain (311) and Spanish America (312). Three hours each week.

SPN 321, 322. Survey of Spanish Literature (3,3) Prerequisite: Spanish 202 or equivalent. Extensive readings covering the main currents of Spanish literature; emphasis in classroom discussions on textual analysis and criticism; oral and written reports. Three hours each week.

SPN 405. Advanced Conversation and Composition (3) Prerequisite: Spanish 202 or equivalent. Emphasis on oral Spanish, essay writing and translation. Recommended for student preparing for teaching. Three hours each week.

SPN 421, 422. Spanish-American Literature (3,3) Prerequisite: Spanish 322 or equivalent. 421: Representative works from colonial times to the Modernista movement. 422: Representative works from the Modernista movement to the present with emphasis on the novel and poetry. Three hours each week.

SPN 430. Spanish Literature of Middle Ages (3) Prerequisite: Spanish 322 or equivalent. Literature of medieval Spain. Three hours each week.

SPN 431. Golden Age Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature of the sixteenth and seventeenth centuries. Three hours each week.

SPN 432. Modern Spanish Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature from the beginning of the eighteenth century to the Generation of 1898. Three hours each week.

SPN 433. Contemporary Spanish Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature from the Generation of 1898 to the present. Three hours each week.

SPN 434. Cervantes (3) Prerequisite: Spanish 322 or equivalent. Don Quixote and other selected works. Three hours each week.

SPN 491. Directed Individual Study (1-3) Prerequisite: Junior senior standing and consent of department chairman.

SPN 495. Seminar in Spanish Studies (1-3) Prerequisite: Spanish 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions.

SPN 499. Honors Work in Spanish (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

German Course Descriptions

(Department of Foreign Languages and Literatures)

GER 101-102. Elementary German (3-3) Prerequisite: Emphasis on achievement of an active command of the language. Aural-oral practice, intensive study of the basic patterns of spoken German; reading, writing and basic conversation. Three hours each week.

GER 201-202. Intermediate German (3-3) Prerequisite: German 102 or equivalent 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including history, literature, religion, and the sciences. Composition and conversation to enable the student to apply and expand his knowledge of the language. Individual projects relating to the student's major field of interest. Three hours each week.

GER 305. Conversation and Composition (3) Prerequisite: German 202 or consent of instructor. Intensive training in spoken and written German. Three hours each week.

GER 321, 322. Survey of German Literature (3,3) Prerequisite: German 202 or consent of instructor. Extensive reading covering the main trends of German literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports 321; Literature through Goethe. 322: literature beginning with the Romon-Tiber. Three hours each week.

GER 350. Masterpieces of German Literature in English Translation (3) Reading, discussion, and analysis of representative works by major German authors: Lessing, Goethe, Schiller, Kleist, Hebbel, Hauptmann, Mann, Hesse, and others. Knowledge of German not required. Three hours each week.

GER 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

Latin Course Descriptions

(Department of Foreign Languages and Literatures)

LAT 101-102. Elementary Latin (3-3) Emphasis on achievement of an active knowledge of the Latin language and reading ability in classical Latin. Intensive study of Latin grammar, aural/oral practice; reading from Latin authors, especially Ovid; discussions to introduce the students to the literature, culture and society of ancient Rome. Three hours each week.

Modern Languages Course Description

(Department of Foreign Languages and Literatures)

MLN 305. Romance Linguistics (3) Prerequisite: French 307 or Spanish 307 or equivalent. Origins of French and Spanish. Historical phonology, morphology and syntax; some attention to comparative and applied linguistics. Three hours each week.

Portuguese Course Descriptions

(Department of Foreign Languages and Literatures)

PRT 101-102. Elementary Portuguese (3-3) Emphasis on the acquisition of an active and useful command of the language. Intensive aural-oral practice with the study of grammatical structures along with the pursuit of a reading and writing ability. Discussions to introduce the students to the culture of the Portuguese-speaking areas of the world, primarily Brazil and Portugal. Three hours each week.

PRT 201-202. Intermediate Portuguese (3-3) Prerequisite: Portuguese 102 or equivalent. 201: A thorough and practical review and summarization of modern Portuguese. Introduction to readings of literary and intellectual value, as well as some material of social and political interest. Continuation of the aural-oral practice in class. 202: Emphasis on reading for the student in subjects of various types. Materials drawn from fields such as history, politics, sociology, geography, and others. Oral discussions to enable the student to apply his knowledge of the language. Brief grammatical explanations when necessary. Three hours each week.

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

HEALTH, PHYSICAL EDUCATION AND RECREATION

Dr. Charles Lewis, Chairman. Mr. D. Allen, Dr. E. Allen, Mr. Blackmore, Mr. Brooks, Mr. Chapman, Dr. D. Cockrell, Dr. Combs, Dr. D. Culkin, Mr. M. Elbe, Mr. Ellington, Mr. Gibson, Dr. Gladwell, Mr. Guthrie, Dr. Hatcher, Dr. Hollifield, Mr. Honeycutt, Mr. Lane, Mrs J. Lewis, Miss McDaniel, Dr. Maylath, Dr. D. Miller, Ms. Parker, Mr. Scalf, Ms. Sherman

Requirements for a concentration in Physical Education for the B.A. degree: Physical Education 200 series* (six hours from numbers 1-8 listed below and two additional hours), 216, 217, 235, 301, 315, 340, 349, 355, 360, 415, 435, 460, Sociology 200, Health 201. Required collaterals: Physical Education 320, 386, and Education and Psychology courses required for teacher certification. A "C" or better grade in all required Physical Education, Education, and Psychology courses. Students are certified in Physical Education. Students may qualify for add-on certification in Health by completing the following additional courses: Health 105, 205, 207, 234, 304, and 305.

*Students must complete 200-aquatics or satisfy the aquatics competency test.

Health Course Descriptions

(Department of Health, Physical Education and Recreation)

HEA 105. Individual Well-Being (3) Topical areas and issues in health explored within the physical, emotional, social, intellectual, and spiritual dimensions of personal wellness. Three hours each week.

HEA 201. First Aid, Safety, and Cardio-Pulmonary Resuscitation (2) A certification course for American Red Cross First Aid and Cardio-Pulmonary Resuscitation. The class will meet for two lecture hours and one lab hour each week.

HEA 205. Reproduction and Sexuality (3) Prerequisite: Health 105. Emphasizes the anatomy and physiology of reproduction, conception, prenatal growth and parturition; relevant issues pertaining to human sexuality, childbearing and sexual diseases. Three hours each week.

HEA 207. Nutrition (3) The main focus of this course will be the application of the principles of nutrition as related to health, various levels of wellness, and practices of health care. Emphasis on basics of sound nutrition, requirements of various food elements, diet planning, diet patterns for specific age groups, nutritional fads and weight control. Three hours each week.

HEA 234. Principles of Health Education (3) An introduction to the principles of health education planning, organization, and evaluation with emphasis on the school health program. The role of the health education will be examined with respect to health behaviors, attitudes, and problems. Three hours each week

HEA 304. Health and Safety Education , Grades K-9 (3) Anoverview of the three components of the school health program: health instruction, health services, and the healthful school environment. Focuses on method and materials for health instruction, grades K-9. Emphasizes the role and responsibility of the classroom teacher in the areas of first aid, safety, and health problems of children. Three hours each week.

HEA 305. Curriculum Methods in Health (3) Examines the organization and development of the school health curriculum. Emphasis on practical skills related to unit planning and lessonpresentation. Three hours each week.

Physical Education Course Descriptions

(Department of Health, Physical Education and Recreation)

PED 101. Foundations of Physical Activity (2) Study of immediate and long-term effects of physical activity and establishment of individualized programs for acquiring and maintaining physical fitness. One lecture and two hours of activity each week.

PED 102. Physical Education Activity (1) Prerequisite: Students planning to enroll in PED 102 sections of Aerobic Dance. Basic Canoeing, Exercise and Weight Control, Lifeguard Training, Physical Conditioning, Running Fitness,and Weight Training should consult individual instructors about prerequisite requirements. Fundamentals of Hiking, Climbing and Rapelling, Basic Orienteering, and Rifle Marksmanship may be taken for Physical Education 102 or Military Science 103 credit. Students may accumulate up to 7 hours credit in Physical Education 102, but are limited to one hour per semester. Three hours each week.

Archery	Badminton/Tennis
Tennis	Racquetball/Tennis
Golf	Racquetball/Archery
Bowling	Racquetball
Gymnastics	Aerobic Dance
Weight Training	Basic Canoeing
Racquetball	Motorboat Handling
Swimming	Running Fitness
Intermediate, and Advanced Lifesaving	Intermediate Tennis
	Dance Techniques
Water Safety	Exercise and Weight Control
Movement Exploration	Sailing

PED 103. (Recreation 103) Physical Education Activity—Program of Outdoor Pursuits (3) Prerequisite: Physical Education 101 or equivalent. Study of and participation in the skills and knowledge of various outdoor recreational activities in a natural setting. Minimum of 10 one-hour lecture sessions and a minimum of 11 excursion days. Travel and subsistence costs for activities borne by the student . (Non-majors may repeat PED 103, in a different activity area, only once.)

PED 104. Scuba (2) Prerequisite: PED 102 (Swimming) or consent of instructor. Basic SCUBA Diving Course. Emphasizes the history, theory and principles of diving. Hyperbaric physiology; equipment development; use and maintenance; development of diving skills and diving safety. Meets certification requirements for all national certifying agencies to the open water level.

PED 136. (Creative Arts 136) Movement Exploration (3) Study through creative dance techniques of the body's potential as a tool for creative expression, Exploration of the relationship as a tool for creative expression, Exploration of the relationship of danceto other art forms. Solo and group work using basic art concepts and the individual's own experience as material for movement improvisation and composition. Three hours per week. No dance training necessary.

PED 200. Sports Skills (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities. Three hours each week. for one-half semester.

1. Basketball (1)
2. Dance (1)
3. Gymnastics (1)
4. Soccer (1)
5. Softball (1)
6. Tennis (1)
7. Track and Field (1)
8. Volleyball (1)
9. Archery (1)
10. Aquatics (1)
11. Badminton (1)
12. Field Hockey
13. Football (1)
14. Golf (1)
15. Outdoor Adventure Sports (1)
16. Racquetball
17. Wrestling (1)
18. Aerobics (1)

PED 216. (Biology 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three lab hours each week.

PED 217. (Biology 217) Human Anatomy and Physiology II (3) The study of human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement. Three lecture hours each week.

PED 235. History and Philosophy of Human Movement (3) Study of the discipline of human movement in ancient and modern civilizations with particular attention on philosophies influencing its historical development in Western Europe and America. Three hours each week.

PED 236. Athletic Officiating (3) Rules, officiating techniques, and problems arising in officiating with emphasis on football, basketball, baseball, volleyball, and tennis.

PED 301. Prevention, Treatment , and Rehabilitation of Athletic Injuries (3) Prerequisite: Physical Education 216. A basic course in the management of athletic injuries. Three hours each week.

PED 315. Motor Development (2) Prerequisite: Physical Education 216. Analysis of the sequential progression of fundamental motor skills from infancy through adolescence. Study of physical growth patterns and biological maturity as related to motor performance. Attention also given to perceptual motor programs for children.

PED 320. Methods of Teaching Motor Activity (3) Emphasis on instructional methodology appropriate to teaching motor skills and sports activities, formulation of objectives, and lesson planning. Includes practicium in teaching. Three hours each week.

PED 335. Reading in Physical Education (3) A comprehensive review of literature in physical education and related areas. Three hours each week.

PED 336. An Approach to Coaching (3) The application of philosophical and psychological knowledge and principles to the administration and coaching of sports with special emphasis on research literature. Three hours each week.

PED 340. Kinesiology (3) Prerequisite: Physical Education 216. (Biology 216). Study of neuromuscular and mechanical principles of human motion, with emphasis on movement problems most often encountered in fitness activities and sport skills. Three hours each week.

PED 349. (Biology 349) Physiology of Exercise and Sport (4) Prerequisite: Physical Education 216 or Biology 345. A study of fundamental responses of the human body to the tress of exercise, including compensatory adjustments to long-term physical training. Three lecture and two laboratory hours each week.

PED 355. Measure and Evaluation of Human Physical Performance (3) Elementary statistical techniques used in research and interpretation of data; identification of physical fitness and movement components; evaluation of measures now available in the field and administration of performance tests. Three hours each week.

PED 360. Motor Learning (3) An introduction to the principles of motor learning, this course is concerned with the analysis and application of physiology and psychological principles related to the learning and performance of motor skills, Two lecture and one laboratory hours each week.

PED 379. Legal Liabilities in Athletics and Physical Education (3) Prerequisite: Junior of Senior level. An introduction to the legal liabilities existing in Physical Education and Athletics. Terminology, procedure, operations of the law and case studies will be studied enabling students to positively confront liability situations should they arise. Emphasis on state laws as well as national laws. Three hours each week.

PED 386. Physical Education in the Primary Grades (K-3) (3) A study of the theory, techniques and methods of developing and implementing a total program of physical education for children in grades K-3. Emphasis on the "movement approach" to learning fundamental motor skills, equipment construction, rhythms and dance, stunts and tumbling, classroom games of low organization, including activities in gymnastics, dance and fitness development. Three hours each week.

PED 387. Physical Education in the Intermediate Grades 4-6 (3) Methods and materials for developing and conducting a yearly program of physical education for children in grades 4-6. Emphasis on refinement of sports skills through lead-up games, relays and other games of low organization, including activities in gymnastics, dance and fitness development. Three hours each week.

PED 415. Movement Considerations for Special Populations (3) Prerequisite: Physical Education 216 and junior or senior standing. Problems relating to the physiological and kinesiology needs of the individual with physical limitations. emphasis on the selection of activities that will provide opportunities for optimum development of which he or she is capable. Two lecture and two laboratory hours each week.

PED 416. Laboratory Techniques and Research Methods in Exercise Physiology (3) Prerequisite: Physical Education 349 and consent of instructor. A study of laboratory techniques and research methods used to evaluate physiological response to exercise and training. Primarily a laboratory experience. Three hours each week.

PED 420. Teaching Physical Education (2) Prerequisite: Physical Education 320. (PED 420 must be taken before Education 408 and 409). Individualized, supervised experience in teaching. Experience complemented with seminar on contemporary problems.

PED 421-422-423-424-425-426. Methods of Coaching (2) Emphasis on strategy, fundamentals, techniques, training and related duties. Two hours each week.

421 Basketball	424 Track and Field
422 Basketball	425 Soccer
423 Football	426 Volleyball

PED 435. Organization and Administration of Health and Physical Education and Athletics (3) Prerequisite: Junior or senior standing or consent of instructor. Analysis of problems associated in its planning, organizing, and directing physical education and athleticprograms. Three hours each week.

PED 436. Intramural (3) Prerequisite: Junior or senior standing. The position of intramural activities in the overall program of physical education. Analysis of problems involved in the administration and organization with emphasis on the practical approach in school systems. Three hours each week.

PED 440. Selected Topics in Physical Education (3) Survey course for public school teachers with emphasis on updating traditional ideas and principles and introducing new ideas and problems in health and physical education. Three hours each week.

PED 455. Advanced Tests and Measurements in Physical Education (3) Prerequisite: Physical Education 355. Statistical techniques as applied to research in physical education; measurement and evaluation in areas of agility, balance, power, flexibility, kinesthetic perception and anthropometrics. Three hours each week.

PED 460. Sport Psychology (3) Prerequisite: Junior or senior standing within the department or consent of instructor. Study of psychological and psychosocial knowledge and principles as they relate to sport participants and the sport environment. Three hours each week.

PED 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PED 499. Honors Work in Physical Education (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Requirements for a concentration in Parks and Recreation Management for the B.A degree: Core Courses: Recreation 265, 266, 268, 298, 360, 365, 368, 450, 465, 469, 498.

Commercial Recreation Option: Recreation 350, 351, 366, 495. Required collaterals (13 hours): Accounting 201, 203, Management 350, Marketing 340.

Outdoor Recreation Option: Recreation 271, 366, 470. Required collaterals (12 hours): Biology 206 and two of the following: 356, 366, 456, 475.

Therapeutic Recreation Option: Recreation 369, 370, 467, 468; Physical Education 216, 349. Required collateral (12 hours): Education 260; Psychology 347; Sociology 215; Social Work 396. A grade of "C" or better on all required Recreation and Physical Education courses.

Recreation Course Descriptions

(Department of Health, Physical Education and Recreation)

REC 103. (Physical Education 103) Physical Education/Recreation Activity Program of Outdoor Pursuits (3) Prerequisite : Physical Education 101 or equivalent. Study of and participation in the sills and knowledge of various outdoor recreational activities in a natural setting. Minimum of 10 one-hour lecture sessions and a minimum of 11 excursion days. Travel and subsistence costs for activities borne by the student. (Non-majors may repeat PED 103, in a different activity area, only once.)

REC 265. Introduction to Recreation and Parks (3) The scope, development, structure purposes, functions, interrelationships of public, commercial, private and voluntary agencies engaged in rendering recreation and park services. This course is a prerequisite for all other courses in recreation. Three hours each week.

REC 266. Program Planning for Recreation and Parks (3) Prerequisite: Recreation 265. An introduction to programming for recreation and parks, including the major areas of recreation, planning principles, objectives and evaluation. Program factors such as scheduling, personal, facilities, equipment, etc., will be considered. Three hours each week.

REC 268. Social Recreation Leadership (3) Prerequisite: Recreation 265. Leadership and planning principles as they apply to serving the recreation to participant. Study of a variety of activities suitable for social gatherings; complete program of social recreation activities for various groups; practical application of leadership skills. Three hours each week.

REC 271. Camp Leadership and Management (3) Prerequisite: Recreation 265 or consent of instructor. Study of the segment of park recreation programs involved with current camp practices, philosophy, leadership and management. Three hours each week.

REC 298. Practicum in Recreation (3) Prerequisite: Recreation 265 and either Recreation 266 or 268. Supervised experience in recreation and/or park setting. Relates theory to practical application in the field. Placements chosen from community, commercial, outdoor or therapeutic recreation settings. Three hours each week.

REC 350. Recreation and Commercial Enterprise (3) Identification, development, opertation and impact of profit-oriented recreation enterprises. Investigation of feasibility

studies, sources of technical assistance, financing, facility planning and development, marketing and managerial requirements. Three hours each week.

REC 351. Travel and Tourism (3) An introduction to the commercial area of the leisure field which is concerned with travel and tourism. Three hours each week.

REC 360. Outdoor Recreation (3) Prerequisite: Recreation 265. The scope, organization, and program activities using resources in large parks, forest, and primitive areas. Consideration will be given to private, local, state, and federal agencies concerned with outdoor recreation in these areas. Three hours each week.

REC 365. Administration of Recreation and Parks (3) Prerequisite: Recreation 266 and 298. Administrative practice related to recreation and parks services, including budget preparation; legal aspects of recreation and park services; fees and charges; public relations; recruiting; selecting and training personnel; personnel practices, etc. Three hours each week.

REC 366. Water Related Recreation and Park Facilities and Programs (3) Prerequisite: Recreation 265. Water-based resources for recreation activities and programs. Emphasis on swimming pools and coastal resources management. Attention also given to reservoirs/lakes, rivers/ streams, commercial amusements and decorative uses of water.

REC 367. The Arts and Recreation (3) Prerequisite: Recreation 265. Administrative problems involved in organizing quality cultural arts in recreation and parks departments and other leisure services agencies. Areas to be examined include financing, personnel, facilities, and equipment. Funding possibilities and relationships between the National Endowment for the Arts, State Arts, State Arts Councils, Local Arts Councils, and Recreation and Parks Departments will also be studied. Three hours each week.

REC 368. Introduction to Therapeutic Recreation and Special Populations (3) Prerequisite: Recreation 265 consent of instructor. The recreation and parks program for individuals and groups who are ill, handicapped, aged, or in other special groups conducted by tax- supported, voluntary, or private agencies found in the community, hospitals, penal institutions, or other special residences. Three hours each week.

REC 369. Therapeutic Recreation for the Aging (3) Prerequisite, 368. To acquaint the student with the special wants and needs of the elderly; to provide insight into the physical, mental, social, and emotional problems of the aged. To make the student aware of the important role recreation plays in the lives of the aged. Three hours each week.

REC 370. Adaptive Activities and Facilities for Therapeutic Recreation (3) Prerequisite: Recreation 368. To introduce the student to procedures and methods of adapting recreational facilities, programs and activities to meet the needs of the handicapped. Three hours each week.

REC 450. Conflict Resolution in Recreational Leadership (3) Prerequisite: Recreation 265. An experimental approach to the study of conflict resolution in recreation leadership and management. Three hours each week.

REC 465. Planning of Recreation and Park Areas and Facilities (3) Prerequisite: Recreation 365. Basic Principles in planning design and development of park and recreation areas and facilities. Safety, legal liability, contracting, maintenance and vandalism control are also studied. Three hours each week.

REC 467. Leisure Education in Therapeutic Recreation (3) Prerequisite: Recreation 368. An overview of the leisure education process as an aspect of therapeutic recreation service delivery. The course encompasses a review of leisure education and strategiesfor the development, implementation, and evaluation of leisure education programs for persons with disabilities. Three hours each week.

REC 468. Therapeutic Recreation: Program Planning and Implementation (3) Prerequisite: Recreation 368. Advanced level course in programming and program implementation for individuals who are disabled or in other special population groups. Emphasis on sources of funding, community awareness and successful programing techniques. Three hours each week.

REC 469. Research Methods and Practices in Recreation and Parks (3) Prerequisite: Recreation 365. Research techniques employed to solve problems in the recreation and parks field. Research projects, workshops and clinics relative to specific problems on an independent and group basis will undertaken.

REC 470. Outdoor Recreation Management (3) Prerequisite: Recreation 360. Advanced level course in giving in-depth exposure to management techniques necessary for the administration of major outdoor recreation areas including national parks areas, national forest preserves, state parks, county park systems, municipal park systems and commercial areas such as marinas and camp sites. Emphasis on budgeting, personnel management, facility planning and design. Three hours each week.

REC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

REC 495. Seminar in Recreation (1-3) Prerequisite: Recreation 365 or consent of instructor. Discussion of selected topics drawn from current literature. Discussions with various professionals from county, municipal, state, federal, and private recreation and park agencies.

REC 498. Parks and Recreation Internship (6) Prerequisite: Recreation 365. A progression of professional field experiences relating theory to practical experience. Work experiences involving program planning and administrative procedures in county, municipal, institutional and voluntary settings.

REC 499. Honors Work in Recreation (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors student.

For 292 and 492; 294 and 494, see explanation on p. 78.

HISTORY

Dr. McLaurin, Chairman. Mr. W. Allen, Dr. Bailey, Dr. Berkeley, Dr. Cable, Dr. Fink, Mr. Glass, Dr. Kalia, Dr. Kinzer, Dr. McCaffray, Dr. McGuire, Dr. Schneider, Dr. Toplin, Dr. Usilton, Dr. Watson.

Requirements for a concentration in History for the B.A. degree: History 101, 102, 103, 201, 202; an additional 27 hours in history at the 300 - 400 level, and overall "C" average in courses taken within the department. Students may take three hours at the 200 level in addition to History 201 and 202, and are required to take at least three hours at the 400 level, and may count no more than six hours in History 491 and 495 toward the major. Students are required to take at least one upper level course in European, United States, and Third World history (Africa, Asia, Latin American and Middle East). History 490, Senior Seminar, is required of all students. Students are also expected to complete the required lower level courses before upper level ones. Required collaterals include 21 hours selected from departmentally-approved courses in at least 4 of the following areas: English, Foreign Languages and Literatures, Philosophy and Religion, Anthropology, Economics, Geography, Political Science and Sociology. History majors working toward certification in Social Studies for secondary school teaching must complete a minimum of 21 hours in Anthropology, Economics, Geography, Political Science and Sociology with courses in at least 3 areas.

History Course Descriptions

HST 101,102. Western Civilization (3,3) 101; History of Civilization to 1650. 102: History of Civilization from 1650 to the present. Three hours each week.

HST 103. Introduction to Global History (3) An introduction to the global effects of colonialism, industrialism and nationalism with special emphasis on Asia, Africa, Latin America and the Middle East since 1500.

HST 201, 202. American History (3,3) 201: United States to 1865. 202: United States from 1865 to present. Three hours each week.

HST 237. Women in Modern America (3) A broad survey of the female experience in the twentieth century. This course focuses on three areas which affect the lives of modern women: work., politics and sexuality. Utilizing a comparative model, it explores similarities and differences between the first and second woman's movement, the sexual revolutions of the 1920s and 1960s, and the changing nature of women's work in modern and post-modern society. Three hours each week.

HST 261. Afro-American History (3) A concise survey of the major themes and events in the history of black Americans from the colonial period to the present. Three hours each week.

HST 271. The Sea History (3) Prerequisite: History 101-102 or consent of instructor. The history of mankind;s interaction with the sea, focusing on its importance for resources, trade and transport, exploration, and warfare. Three hours each week.

HST 273. Evolution of Warfare (3) The development of war from ancient times to the present, emphasizing its effect upon society. Three hours each week.

HST 275. History of Science Since 1500 (3) An introduction to the history of the major developments in western science from the scientific revolution to the present, including an examination of both the origins of scientific discoveries and their impact on society. Three hours each week.

HST 300. The American Military Experience (3) Prerequisite: History 201-202 or consent of instructor. A survey of the American military experience from the colonial period to the present with emphasis on the wars of America, the evolution and development of military policy, strategy, tactics, and technology; and the relationship of military affairs to the political, social, and economic institutions of America. Three hours each week.

HST 305. The Ancient Near East (3) Prerequisite: History 101-102 or consent of instructor. An intensive political and cultural study of ancient Babylonian, Egyptian, and other Near Eastern civilizations. Three hours each week.

HST 306. Ancient Greece and Rome (3) Prerequisite: History 101-102 or consent of instructor. A study of the civilization of ancient Greece and Rome with special emphasis on the Greek classical period and the Pax Romana. Three hours each week.

HST 311,312. History of England (3,3) Prerequisite: History 101-102 or consent of instructor. 311: From the Roman invasion to the Wars of the Roses. 312: From King Henry VIII to the twilight of the British Empire. Three hours each week.

HST 315. History of Ireland (3) Prerequisite: History 101-102 or consent of instructor. A brief survey of the history of Ireland from Neolithic times to the present, with emphasis on the Celtic culture, Christian influences, and the religio-political conflicts of the 19th and 20th centuries. Three hours each week.

HST 316. British Empire and Commonwealth (3) Prerequisite: History 101-102 or consent of instructor. A consideration of the British Empire, evolution of the Commonwealth and the emergence of additional post-World War II areas of independence. Three hours each week.

HST 321. History of Modern France (3) Prerequisite: History 101-102 or consent of instructor. History of France from the French Revolution and Napoleon through the political, economic and social developments of the nineteenth century to the World Wars of the twentieth century. Three hours each week.

HST 323. History of Modern Germany (3) Prerequisite: History 101-102 or consent of instructor. Study of German nationalism. German unification, the Bismarckian empire, Hitler's Third Reich, and the two Germanies since World War II. Three hours each week.

HST 325, 326. History of Russia (3,3) Prerequisite: History 101-102 or consent of instructor. 325: To the Boishevik Revolution to the present. Three hours week.

HST 327. Modern Israel (3) Prerequisite: History 102 or consent of instructor. The origins of the modern state of Israel; the history of Zionism, the Holocaust, and Great Power

Diplomacy; evolution of Israel since 1948; political, social, economic, cultural, intellectual, scientific, and technological development; the Arab-Jewish conflict; and Israeli democracy and world politics. Three hours each week.

HST 328. European Social History from 1650 to the Present (3) Prerequisite: History 101-102 or consent of instructor. The lives of ordinary people ind different regions of Europe, under feudal, monarchial, capitalist, and Marxist societies; the impact of climate, geography, language, religion, education, and work on individuals, families, social groups, and nations. Three hours each week.

HST 329. European Intellectual History from 1650 to the Present (3) Prerequisite: History 101-102 or consent of instructor. A survey of the main currents of European thought and their relation to European society in general from the Scientific Revolution to present. Three hours each week.

HST 330. Womanhood in America: Family, Work and Community Life (3) Prerequisite: History 201-202 or consent of instructor. An examination of American women and women's roles from the colonial period to the present. Three hours each week.

HST 331. American Urban history (3) Prerequisite: History 201-202 or consent of instructor. The transition in America from a pre-industrial rural society to an industrial urban society. This course explores the effect urbanization had upon America's social political and economic institutions and concludes with an examination of how the "revolution" in transportation and technology shaped the design of American cities. Three hours each week.

HST 333. American Social History (3) Prerequisite: History 201-202 or consent of instructor. The impact of social change on American life from colonial times to the present. An examination of changing concepts of ethnicity and racial identification, the growth of religious movements, the effect of industrialization on family life, the impact of urbanization on crime and violence, and the influences of movies and television on mass behavior. Three hours each week.

HST 334. Slavery and Sectionalism (3) Prerequisite: History 201 and 202 or consent of the instructor. A study of slavery as an intellectual and political problem in the United States with special attention to abolitionism, sectional differences in the 1820-1861 period, and the impact of slavery on the war effort of both the Union and the Confederacy.

HST 335. Diplomatic History of the United States (3) Prerequisite: History 201-202 or consent of instructor. American diplomatic activities and foreign relations since 1775. Three hours each week.

HST 336. Constitutional History of the United States (3) Prerequisite: HIstory 201-202 or consent of instructor. Development of the Constitution through decisions of Supreme Court; evolution of federal authority in relation to distribution of governmental power, society and economic life. Three hours each week.

HST 337. History of American Thought (3) Prerequisite: History 201-201 or consent of instructor. American thought from the colonial period to the present with emphasis on those ideas having lasting influences on American institutions. Three hours each week.

ST 339. **Economic History of the United States (3)** Prerequisite: History 201-202 or consent of instructor. An historical study of American agriculture, labor, industry, transportation, and banking with emphasis on the relation of the government to the economy. Three hours each week.

ST 341. **North Carolina 1524 to 1835 (3)** Prerequisite: History 201-202 or consent of the instructor. Political, economics and social development of North Carolina in the colonial federal period to the Constitution of 1835. Three hours each week.

ST 342. **North Carolina, 1835 to the Present (3)** Prerequisite: History 201-202 or consent of instructor. Political, economic and social development of North Carolina in the nineteenth and twentieth centuries. Three hours each week.

ST 346. **The Old South (3)** Prerequisite: History 201-202 or consent of instructor. The South from the colonial period to the Civil War with emphasis on political, economic, and social institutions distinctive to the South. Three hours each week.

ST 347. **The New South (3)** Prerequisite: History 201-202 or consent of instructor. Aftermath of Reconstruction, rise of the New South, effects of industrialism, continuation and decline of sectionalism. Three hours each week.

ST 351. **History of Canada (3)** Prerequisite: History 101-102 or History 201-202 or consent of instructor. A brief survey of Canada under the French; development under British control; evolution of the Dominion; relations with the United States and British Commonwealth of Nations. Three hours each week.

ST 360. **History of China (3)** Prerequisite: Any two of the following: History 101, 102 or 103; or consent of the instructor. Survey of the history of China: the evolution of characteristic Chinese institutions and modes of thought from antiquity to the present within a wider framework of political, economic and cultural change; Chinese responses to western imperialism in modern times; revolutionary transformation in modern contemporary China.

ST 361. **History of Japan (3)** Prerequisite: Any two of the following: History 101, 102 or 103; or consent of instructor. Survey of Japanese history from the earliest recorded times to the present emphasizing Japan;s development as a cultural daughter of China: Japanization of Chinese culture and unique aspects of Japanese civilization; the emergence of a modern economy and state economic bases of Japanese militarism-imperialism; developmental characteristics of Japanese capitalism.

ST 365. **History of Modern East Asia (3)** Prerequisite: History 101-102 or consent of instructor. A survey of modern east Asian history from the mid-nineteenth century to the present with emphasis on the Asian response to western imperialism, institutional continuity and change, international relations, and movements toward independence and modernization. The course focuses on China, Japan and Korea with secondary attention to Southeast Asia in the post-World War II era. Three hours each week.

ST 368. **Latin American History (3)** Prerequisite: An America or Western Civilization survey course or consent of instructor. The development of South America. Central

America, and the Caribbean from the time of the pre-Conquest civilizations to the present. Three hours each week.

HST 371. History of Africa (3) Prerequisite: History 101-102 or consent of instructor Historical survey of African cultures with emphasis on the establishment of colonia empires, Africa under colonial rule, and modern African independence movements Three hours each week.

HST 378. (Geography 378) Historic Preservation Planning (3) An applied research course which ideals with the procedures employed by federal, state, and loca agencies in locating, recording, restoring, and preserving American architectura heritage an material cultural resources. Subjects examined include: survey, docu mentation, and planning; historic districts; adaptive use; funding; legislation; anc organizational roles.

HST 380. 20th Century International Relations (3) Prerequisite: One of the following History 102, 103, 202, or consent of instructor. Historical analysis of the main tech niques, goals, and practitioners of international relations from World War I to the present, stressing shifts in the balance of power, ideological competition, alliance systems, international organizations, peace movements, and new methods of conflic resolution.

HST 403. (530) Medieval Civilization (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. A study of medieval institutions anc culture with special emphasis on feudalism, manorialism, and the religious system of the period. Three hours each week.

HST 405. Political History of Middle Ages (3) Prerequisite: History 101-102 or consen of instructor. A study of the political development of medieval Europe from the decline of the roman Empire in West to the emergence of the modern period. Three hours each week.

HST 407. (532) Europe in the Age of the Renaissance (3) Prerequisite: History 101 102 and completion of any university course work at the 300 level. Political, economic and social changes during the Renaissance, with special attention to the artistic anc intellectual achievements of the age. Three hours each week.

HST 409. (533) Europe in the Age of the Reformation (3) Prerequisite: History 101 102 and completion of any university course work at the 300 level. Causes and development of the Protestant Revolution and the Catholic Reformation with examination of the impact of these movements on the political, economic and social institutions of early modern Europe. Three hours each week.

HST 411. (534) Europe: From Monarchy to Revolution (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. Modern Europe from the rise of absolute kings in the seventeenth century to the defeat of the Emperor Napoleon. Emphasis is placed on the wars to gain control to Europe and colonial empire. the development of capitalist finance and a global economy, and the decline of aristocracy, climaxing in the French Revolution and the age of Napoleon. Three hours each week.

ST 413. **(535) Europe: The Age of Industry and Empire (3)** Prerequisite: History 101, 102 and completion of any university course work at the 300 level. The origins and development of the industrial revolution in Europe; its effect on politics, population, urbanization and social class consciousness, the establishment of modern colonial empires in the nineteenth century and their place in the world economic order. Three hours each week.

ST 415. **(536) Europe and the Struggle for World Mastery (3)** Prerequisite: History 101, 102 and completion of any university course work at the 300 level. The rivalry of Europe's great powers leading to World Wars I and II: the causes, events, and results of those global conflicts; the ensuing political revolutions in the inter-war period; anticipations of decline of the European empires; the spread of democracy and self-determination to certain areas; and European cultural and scientific development in the first half of the twentieth century. Three hours each week.

ST 417. **(537) Europe Since 1945 (3)** Prerequisite: History 101, 102 and completion of any university course work at the 300 level. The revival of Europe after the Nazi period and its division by the Cold War; political, social, economic developments on both sides of the "Iron Curtain," decolonialization of Europe's empires; movements for political and economic integration; continuing revolutionary currents; Europe's place in contemporary world politics. Three hours each week.

ST 420. **Great Britain 1815-1914: The Victorian Age (3)** Prerequisite: History 101, 102 and completion of any university course work at the 300 level. An examination of British society form the conclusion of the Napoleonic Wars to the outbreak of WWI. Major themes considered will include the impact of industrialization and urbanization; the gradual democratization of British politics; the cultural aspects of "Victorianism;" the foundations of British international power; the expansion of the British Empire.

ST 431. **(554) The Chinese Revolution (3)** Prerequisite: History 101, 102 and completion of any university course work at the 300 level. The Chinese Revolution from the May 4th Movement (1919) to the present. Special emphasis on the social and economic origins of the revolution, the history of the Communist Movement, the evolution of Mao Zedong's thought, and revolutionary developments in the People's Republic.

ST 441. **(510) Colonial History of the U.S. (3)** Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Formation and growth of American colonies to the conclusion of the French and Indian War (1763). Three hours each week.

ST 443. **(511) The American Revolution and Formation of the United States, 1763-1800 (3)** Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Organization of the British Empire, events preceding the Revolution, the war for independence, Confederation era, drafting and ratification of the federal Constitution, politics of the new nation. Three hours each week.

ST 445. **(512) The Early United States Republic (3)** Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Era from inauguration of Thomas Jefferson through Jacksonian democracy to the advent of the American Civil War. Three hours each week.

HST 447. (513) The Civil War and Reconstruction (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. The American Civil War and Reconstruction of the South through 1877. Three hours each week.

HST 449. (514) Robber Barons and Reformers, the U.S., 1877-1917 (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. The rise of American and industry and the Populist-Progressive responses to Urbanization and industrialization. Three hours each week.

HST 451. (515) Twentieth Century America (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. A study of the United States from 1917 to 1950 with emphasis upon World War I, the Roaring twenties, Depression and New Deal, World War II, and the origins of the Cold War. Three hours each week.

HST 452. (516) America Since 1950 (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Developments in American politics, cultural life, civil rights and foreign policy from the time of the Truman Administration to the present, including the Cold War, Korea, the Vietnam War, Watergate, the energy crisis, the nuclear arms race, feminism, and the "Me Decade." Three hours each week.

HST 470. (570) Introduction to Applied History (3) Prerequisite: History 201, 202 and completion of course work at the 300 level in History. A research seminar designed to acquaint students with the various sectors of applied history (government/public policy, archives and information management, cultural resource management, media and research organizations), and with the research methodologies peculiar to the field. Field trips, guest speakers and a sponsored research methodologies peculiar to the field. Field trips, guest speakers and a sponsored research project provide practical experience for participants.

HST 480. (517) Topics in Afro-American History (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. An intensive historical study of selected themes and events in the history of Afro-Americans from the origins of the Atlantic slave trade to the present. Examples of specific topics are: Slavery in the Americas, Blacks and the American Military Tradition, Black Folklore, the Harlem REnaissance and Biographies of Great Afro-American Leaders. Three hours each week.

HST 482. (576) Community Studies (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Provides an introduction to the methodological and practical application of community studies. Topics include: oral history, folklore, ethnography, museum and archival collection and management and historic preservation. Students will select a research project in cooperation with one oft he local museums, historical societies, the public library or another governmental agency. Three hours each week.

HST 490. Senior Seminar (3) Prerequisite : Senior standing. An exploration of historiography and the methodologies of historical research, with an emphasis on the writing history.

IST 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Students should have a 2.0 grade point average.

IST 495. Seminar (3) Prerequisite: History 101, 102, or 201, 202 as appropriate or consent of instructor. Intensive study of historical topic not regularly covered in other courses.

IST 498. Internship in Applied History (3) Prerequisite: History 101, 102, 201, 202, 377 and at least one other history course of relevant content. Academic training and practical field experience through work with a private historical agency in the three county area in and around Wilmington. Faculty supervision and evaluation of all study and on-site activity. Open to students of junior or senior standing who have been approved by the Advisory Committee for the Intern Program.

IST 499. Honors Work in History (2-3) Prerequisite: Senior standing. Consent of instructor or department chairman. Individual study of honors students.

MARINE BIOLOGY

(See Biological Sciences)

MATHEMATICAL SCIENCES

Dr. D. Smith, Chairman. Dr. Alves, Dr. Berman, Dr. J. Brown, Mr. T. Brown, Dr. Dankel,)r. Etheridge, Dr. Frierson, Dr. Greim, Dr. Gurganus, Dr. Herbst, Dr. Jambor, Dr. Kambule,)r. Karlof, Dr. Lugo, Mr. Lupton, Dr. McLaurin, Dr. Nelson, Dr. Norris, Dr. Sadek, Dr. Saksena, Dr. H. Smith, Dr. Spackman, Ms. Wager, Dr. Whipkey, Dr. Worsey, Dr. Yan.

Requirements for a concentration in Computer Sciences for the B.S. degree:

Core Requirements: Computer Science 121, 122, 231, 241, 242, 332, 334, 360; Mathematics 161, 162, 335; Statistics 262, 362. In addition to the core requirements there are hree options below, one of which a student must complete in order to fulfill the degree equirements. With careful planning and advising, a student may complete a second major n an area of application.

Option 1. This option is designed for students interested in applications of computer cience to the mathematical or physical sciences.

Computer Science 325, 425, 460; Mathematics 261, 361; Physics 201, 202; and two ourses selected from Computer Science 420, Mathematics 435, 436, 461, 462, 471, and Mathematics/Statistics 465.

Option 2. This option emphasizes the study of computers as systems. Students electing this option are prepared for careers involving systems analysis or systems ntegration, or for graduate studies in computer sciences.

Computer Science 325 or Mathematics 361; Computer Science 342, 410, 442, 460, Mathematics 261; Mathematics 336 or 375; Physics 201, 202.

Option 3. This option is designed for students who intend to use the computer as a ool for industrial or business and information systems applications.

Computer Science 455; six additional hours at the 300 or 400 level in Computer Science, Mathematics or Statistics, approved by the advisor; Accounting 201, 203; Economics 221, 22; Finance 335; Management 350; Marketing 340; Production and Decision Sciences 14.

A grade of "C" or better must be earned on each required Computer Science course; a quality point average of (C) 2.0 or better must be earned on all other courses required for the concentration.

Note: Students interested in the degree program in Computer Science are encouraged to begin their mathematics study with Calculus I (Mathematics 161). Initial placement in mathematics is based on high school background and the Mathematics Placement test. Students not prepared for calculus in their first semester should begin with Mathematics 115 or Mathematics 111-112, as appropriate. Students who place into Mathematics 162 are advised to take the Advanced Placement Test to receive college credit for Mathematics 161.

Computer Science Course Descriptions

(Department of Mathematical Sciences)

CSC 105. Survey of Computer Applications (2) An introduction to data processing for non-majors with an emphasis on understanding capabilities without engineering or programming skill. History and structure of computer systems. Concepts of simulation, operational control, information management, and time-sharing with related terminology. Types of errors in computer based systems. Social implications of the future potential of computer technology. Practice with using programs in the university library. Two hours each week.

CSC 107. Programming Laboratory - SNOBOL (1) Prerequisite: Computer Science 105 or consent of instructor. Elementary programming techniques for character-string processing and text editing. Emphasis will be placed on the pattern matching facilities of SNOBOL. Two hours each week.

CSC 111. Introduction to Computer Programming Using FORTRAN (3) Prerequisite or corequisite: Mathematics 111 or 115. Algorithms and computer systems, data representation, survey of computer applications, elementary programming techniques in FORTRAN, debugging and verification of programs, Two lecture and two laboratory hours each week.

CSC 121. Introduction to Computer Science I (3) Prerequisite: Mathematics 111 or 115, or equivalent. Problem solving methods and algorithms in a modern high-level programming language. Introduces one or more programming environments. Emphasis on programming style and the design, coding, and testing of complete programs. A grade of "C" or better is required for taking any course for which Computer Science 121 is prerequisite. Three lecture and one laboratory hour each week.

CSC 122. Introduction to Computer Science II (3) Prerequisite: Computer Science 121. Continuation of Computer Science 121 with emphasis on character and string processing, elementary data structures, computer graphics, recursion, and use of software tools. A grade of "C" or better is required for taking any course for which Computer Science 122 is prerequisite. Three lecture and one laboratory hour each week.

CSC 125. Computer Language - FORTRAN (2) Prerequisite: Computer Science 121. Elementary and intermediate programming techniques in FORTRAN. Computer solution to numeric problems. No credit after completion of Computer Science 111. Two hours each week.

CSC 126. **Computer Language - PL/1 (2)** Prerequisite: Computer Science 111 or 121. Elementary and Intermediate programming techniques in PL/1. Computer solution to numeric problems and non-numeric problems. Two hours each week.

CSC 127. **Computer Language - COBOL (2)** Prerequisite: Computer Science 111 or 121. Elementary and intermediate programming techniques in COBOL. Computer solution to business oriented problems. Two hours each week.

CSC 128. **Interactive Personal Computing (2)** Prerequisite: Computer Science 111 or 121. Elementary programming techniques using interactive services. The use of personal computers. Two hours each week.

CSC 207. **Language Processing (3)** Prerequisite: Computer Science 107. The role of computers as tools in linguistic studies; literary applications of computing: verbal indexes, concordances, authorship controversies; computational linguistics; algorithms for manipulating character strings using the SNOBOL programming language. Three hours each week.

CSC 231. **(Mathematics 231) Discrete Structures (3)** Corequisite: Computer Science 121. Introduction to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary graph theory and applications to computer science. Three hours each week.

CSC 241. **Introduction to Computer Systems & Assembly Languages (3)** Prerequisite: Computer Science 121. Introduction to computer structure. Registers, machine instructions and formats; number and character representation; execution control and addressing techniques. Basic input-output programming; files; procedures, segmentation, and linkage, recursion and re-entrancy; floating-point and string operations. Symbolic and machine-level debugging. Three hours each week.

CSC 242. **Digital Logic and Computer Organization (3)** Prerequisite: Computer Science 231 and 241. Study of computer system organization. Combinational and sequential circuit analysis and synthesis; medium and large-scale integrated circuits. Register-transfer language and microprogramming; instruction fetch and execution; flow of control. Input-output, controllers, interrupts, communications and codes. Introduction to computer networks. Three hours each week.

CSC 305. **Computer Graphics (3)** Prerequisite: Computer Science 121 and mathematics 261. Display memory generation of points, vectors, etc. Digitizing and digital storage. Pattern recognition by features, syntax tables, random nets, etc. Data structures and graphics software. The mathematics of three dimensions, projections, and the hidden-line problem. "Graphical programs," computer-aided design and instruction, and animated movies. Three hours each week.

CSC 325. **(Mathematics 325) Numerical Algorithms (3)** Prerequisite: Computer Science 111 or 121, Mathematics 162. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

CSC 332. Data Structures (3) Prerequisite: Computer Science 122 and 231. Study of basic data structures and their applications. Lists and trees; graph algorithms; internal and external sort and search techniques; hashing; analysis and design of efficient algorithms; file processing techniques. Three hours each week.

CSC 334. Programming Languages (3) Prerequisite: Computer Science 332. Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures. Three hours each week.

CSC 342. Operating Systems (3) Prerequisite: Computer Science 242 and 334. Study of supervisory programs. System services and file systems; CPU scheduling; memory management; virtual memory; disk scheduling. Deadlock characterization, prevention, and avoidance; concurrent processes; semaphores; critical sections; snychronization. Distributed systems and communication protocols. Three hours each week.

CSC 350. Computer Components and Circuits (3) Prerequisite: Mathematics 162 and Physics 202. Introduction to the basic elements of electricity, electronics, and semiconductor device theory as applied to computer components. Voltage, current, Ohms's law; capacitance, inductance, reactance, impedance, and analysis of AC circuits; transmission lines; transistors, flip-flops, and small-scale integrated circuits; medium and large-scale integrated circuits and the microprocessor. Three hours each week.

CSC 360. Formal Languages and Computability I (3) Prerequisite : Computer Science 332. An introduction to theoretical computer science. Topics include regular expression and finite state concepts; basic automata theory; formal grammars and languages; computability; Turing machines; elementary recursive function theory. Three hours each week.

CSC 365. Switching Theory (3) Prerequisite: Computer Science 231. Switching algebra, gate network analysis and synthesis, Boolean algebra, combinational circuit minimization, sequential circuit analysis and synthesis, sequential circuit state minimization, hazards and races, and elementary number systems and codes. Three hours each week.

CSC 410. Compiler Construction (3) Prerequisite: Computer Science 360. Review of program language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design. Use of compiler writing languages and bootstrapping. Three hours each week.

CSC 420. Simulation Techniques (3) Prerequisite: Computer Science 231 and Statistics 362. Introduction to simulation and comparison with other techniques. Discrete simulation models, and introduction to, or review of, queueing theory and stochas-

tic processes. Comparison of discrete change simulation languages. Simulation methodology including generation of random numbers and variates, design of simulation experiments for optimization, analysis of data generated by simulation experiments, and validation of simulation models and results. Selected applications of simulation. Three hours each week.

CSC 425. **(525; Mathematics 425/525) Numerical Analysis (3)** Prerequisite: Mathematics 325, 335 and 361. Introduction to the theoretical foundations of numerical algorithms. Solution of linear systems by direct methods, least squares, minimax, and spline approximations; polynomial interpolation; numerical integration and differentiation; solution of non-linear equations; initial value problems in ordinary differential equations. Error analysis. Certain algorithms are selected for programming. Three hours each week.

CSC 432. **Advanced Data Structures (3)** Prerequisite: Computer Science 332 and Mathematics 335. Advanced topics in data structures, with emphasis on algorithmic complexity. Recursive list manipulations; paradigms of search; biconnectivity, strong connectivity,and precedence relations in graphs; pattern matching; search trees; file structures; optimal techniques for sorting, merging, and selection. Three hours each week.

CSC 442. **Advanced Computer Organization (3)** Prerequisite: Computer Science 342. Advanced topics in computer organization and architecture. Readings from the literature contrasting alternative organization schemes as they affect systems development. Seminar format. Three hours each week.

CSC 450. **Software Engineering (3)** Prerequisite: Computer Science 332. Study of the design and production of large and small software systems. Topics include systems engineering, software life-cycle and characterization; use of software tools. Three hours each week.

CSC 455. **Data Base Management Systems (3)** Prerequisite: Computer Science 332. Introduction to data base concepts, data independence, logical and physical views of data base systems. Data models: hierarchial, network, and relational. Data description languages, query functions, relational algebra. Three hours each week.

CSC 460. **Formal Languages and Computability II (3)** Prerequisite: Computer Science 360. Advanced topics in theoretical computer science. Theory of computation; languages and syntactic analysis; computational complexity and NP -completeness. Three hours each week.

CSC 475. **Topics in Computer Science (3)** Prerequisite: Senior standing and permission of instructor. Topics of current interest in computer science not covered in existing courses. Three hours each week.

CSC 491. **Directed Individual Study (1-3)** Prerequisite: Junior or senior standing and consent of department chairman.

CSC 495. **Seminar in Computer Science (1)** Prerequisite: Junior or senior standing and consent of instructor.

CSC 499. Honors Work in Computer Senior (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492; 294 and 494, see explanation on p. 78.

Requirements for a concentration in Mathematics:

Core requirements: Mathematics 161-162, 261, 275, 335, 336, 375, and either 366 or 411; Computer Science 121; Statistics 262-362; Physics 201-202; and at least nine hours at the 300 or 400 level approved by the advisor in an area related to mathematics. In addition to the core requirements there are three options listed below, one of which a student must complete to fulfill the degree requirements.

I. **B.A. degree teacher certification in Mathematics:** Mathematics 345, 346. The Education and Psychology courses required for teacher certification satisfy the core requirements of at least nine hours at the 300 or 400 level in an area related to mathematics.

II. **B.A. degree in Mathematics:** Nine additional hours of mathematics courses at the 300 or 400 level approved by the advisor.

III. **B.S. degree in Mathematics:** Mathematics 361, one of Mathematics 367, 411 (if not used for the core requirement), 412 or 415; a mathematical modeling course, and six additional hours of mathematics or statistics courses at the 300 or 400 level approved by the advisor. The modeling requirement may be fulfilled by taking any of: Mathematics 436, 462, 471, or Mathematics/Statistics 465. (Note: Some of these courses require additional prerequisites.)

A "C" (2.0) or better average is required for mathematics course at the 300-400 level.

Note 1. Collateral courses required in the three programs in Mathematics must be chosen from departmentally approved courses which, together with the student's Mathematics courses, comprise a coherent program. Normally a proposed program of study should be submitted to the department for approval prior to the beginning of the student's junior year.

Note 2. Students interested in a degree program in Mathematics are encouraged to begin their mathematics study with Calculus I (Mathematic 161). Initial placement in mathematics is based on high school background and the Mathematics Placement Test. Students not prepared for calculus in their first semester should begin with Mathematics 115 or Mathematics 111-112, as appropriate. Students who place into Mathematics 162 are advised to take the Advanced Placement Test to receive college credit for Mathematics 161.

Mathematics Course Descriptions

(Department of Mathematical Sciences)

In general, Mathematics is sequential in nature. Therefore, successful mastery of each curse in sequence is necessary in order to be adequately prepared for the next course. In light of this, it is strongly recommended that students obtain a grade of at least "C" before registering for the next course in a sequence. With special permission a student can repeat

a course in which a "D" grade is obtained. Sequences offered where this guideline is applicable are Mathematics 111-112, Mathematics 111-151, Mathematics 111-112-151-152, Mathematics MAT 115-151-152, Mathematics 111-112-161-162-261, Mathematics 115-161-162-261.

MAT 100. Foundations of Algebra (0) Designed primarily for students not prepared for Mathematics 111 who need additional manipulative skills, particularly in algebra. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

MAT 101-102. College Mathematics for The General Student (3,3) A survey of mathematical ways of thinking designed for the general student. Not intended as preparation for further mathematics courses. Cannot be substituted for MAT 111, 112, or 115. Emphasis on concepts and applications rather than on manipulative skills. Introduces logic, number systems, algebra, geometry, probability, statistics, computers, calculus and the history of mathematics. No credit granted after the completion, with a grade of "C" or better, of a mathematics course numbered 141 or higher. Three hours each week.

MAT 111. Precalculus I (3) Prerequisite: Satisfactory performance on the UNCW mathematics placement test. A preparatory course for further mathematics courses. Equations and inequalities; polynomial, exponential and logarithmic functions; graphs; systems of equations and inequalities. No credit granted after the completion, with a grade of "C" or better, of Mathematics 115 or a mathematics course numbered 151 or higher. Three hours each week.

MAT 112. Precalculus II (3) Prerequisite: Mathematics 111 or equivalent or satisfactory performance on the UNCW mathematics placement test. Topics from trigonometry and algebra. Includes trigonometric functions, identities and equations; zeros of polynomials; mathematical induction; and sequences. No credit granted after the completion, with a grade of "C" or better, of Mathematics 115 or a mathematics course numbered 152 or higher. Three hours each week.

MAT 115. Elementary Mathematical Analysis (3) Prerequisite: Satisfactory performance on the UNCW mathematics placement test. (This is usually equivalent to an SAT score above 500 in math, and at least a "B" average in Algebra I and II, Geometry, Advanced Algebra and Trigonometry.) A one-semester treatment of the topics listed under Mathematics 111 and Mathematics 112. No credit granted after the completion, with a grade of "C" or better of Mathematics 111, Mathematic 112, or a mathematics course numbered 151 or higher. Three hours each week.

MAT 141-142. Basic Concepts of Mathematics (3-3) (Designed for students majoring in elementary education.) The real number system and related operations, units of measurement, graphs and data analysis, geometry, logic and sets, an introduction to calculators and computers. Three hours each week.

MAT 151-152. Basic Calculus with Applications (3-3) Prerequisite: Mathematics 111 or 115 for 151; Mathematics 112 or 115 and 151 for 152. Differentiation and integration of algebraic and certain transcendental functions, partial differentiation, sequences and series. Greater emphasis is placed on techniques and applications than on theory and derivations. This sequence is not intended for students who need mathematics beyond calculus. Three hours each week.

MAT 161-162. Calculus with Analytic Geometry (4-4) Prerequisite: Mathematics 112 or 115 or equivalent preparation in algebra and trigonometry. Treatment of calculus of a single variable intended for students in the mathematical and natural sciences. Functions and limits; differentiation with applications including maxima and minima, related rates, differentials and approximations; theory of integration with applications; equations of curves including the conic sections; transcendental functions; infinite sequences and series. Three lecture and two hour laboratory hours each week.

MAT 231. (Computer Science 231) Discrete Structures (3) Corequisite: Computer Science 121. Introduction to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary minimization; relations; principles of recursion and induction; elementary graph theory and applications to computer science. Three hours each week.

MAT 261. Multivariate Calculus (4) Prerequisite: Mathematics 162. Calculus of functions of several variables. Polar coordinates and parametric equations, solid analytic geometry, partial derivatives, multiple integrals. Three hours lecture and two hours laboratory each week.

MAT 275. Axiomatic Systems (3) Prerequisite: Mathematics 161. An introductory treatment of propositional and predicate logic and methods of proof. Elementary set theory, relations, functions and topics from axiomatic systems. Precision in the use of mathematics as a language and rigor in proofs are emphasized. Students present and discuss appropriate material to gain experience in communicating mathematics. Three hours each week.

MAT 325. (Computer Science 325) Numerical Algorithms (3) Prerequisite:Computer Science 111 or 121, Mathematics 162. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

MAT 335. Linear Algebra and Matrices (3) Prerequisite: Mathematics 162. Systems of linear equations, vector spaces, algebra of matrices and linear transformations, determinants, applications. Three hours each week.

MAT 336. Modern Algebra (3) Prerequisite: Mathematics 275, 335 or consent of instructor. Equivalence relations; groups, subgroups, normal subgroups, quotient groups; rings, subrings, ideals, quotient rings; rings of integers, fields of rational, real and complex numbers, polynomial rings. Three hours each week.

MAT 345. Modern College Geometry (3) Prerequisite: Mathematics 275 or consent of instructor. Use of elementary methods in advanced study of the triangle and circle, special emphasis on solving original examples; comparison of Euclidean and non-Euclidean and projective geometries. Three hours each week.

MAT 346. Historical Development of Mathematics (3) Corequisite: Mathematics 275 or consent of instructor. Development of mathematics from earliest systems to present

century. Personalities involved with the contributions of each. A problem-study approach to give the student some training in research. Three hours each week.

MAT 361. Differential Equations (3) Prerequisite: Mathematics 261. Theory , methods of solution, and applications of ordinary differential equations with emphasis on first order equations and linear equations. Additional topics from power series solutions, Laplace transforms, linear systems, and numerical methods. Three hours each week.

MAT 366. Advanced Calculus I (3) Prerequisite: Mathematics 261. A thorough study of differential and integral calculus of vector-valued functions of a vector variable. Jacobians, inverse and implicit function theorems, change of variables in multiple integrals; theorems of Green, Gauss, and Stokes; applications. Three hours each week.

MAT 367. Advanced Calculus II (3) Prerequisite: Mathematics 366. Further topics in analysis and their applications. Infinite series, power series, uniform convergence; Fourier series and orthogonal functions; Fourier and Laplace transforms; elementary applications to differential equations and boundary value problems. Introduction to complex variables and residue theory. Three hours each week.

MAT 375. Combinatorics (3) Prerequisite: Statistics 262 and either Mathematics 275 or Computer Science/Mathematics 231. Techniques for counting configurations of objects. Recurrence relations; principle of inclusion-exclusion; graphs, trees, and circuits. Additional topics chosen from Polya's Theorem, generating functions, and network flows. Three hours each week.

MAT 411-412. (511-512) Real Analysis (3-3) Prerequisite: Mathematics 261 and 275. Advanced study of convergence, continuity, differentiation, and integration and Euclidean space. The real number system, basic topology of Euclidean spaces; sequences and series; continuity, differentiation of vector-valued functions, uniform continuity; theory of integration; implicit and inverse function theorems, Stokes' Theorem. Three hours each week.

MAT 415. (515) Introduction to Complex Variables (3) Prerequisite: Mathematics 367 or 411. A first study of functions of a complex variable. Algebra of complex numbers, elementary functions with their mapping properties; analytic functions; power series; integration, Cauchy's Theorem, Laurent series and residue calculus; elementary conformal mappings and boundary value problems. Three hours each week.

MAT 421. (521) Number Theory I (3) Prerequisite: Mathematics 336. Use of algebraic techniques to study arithmetic properties of the integers and their generalizations. Primes, divisibility and unique factorization in integral domains; congruences, residues and quadratic reciprocity; diophantine equations and additional topics in algebraic number theory. Three hours each week.

MAT 425. (525; Computer Science 425/525) Numerical Analysis (3) Prerequisite: Mathematics 325, 335, and 361. Introduction to the theoretical foundations of numerical algorithms. Solution of linear systems by direct methods; least squares, minimax, and spline approximation; polynomial interpolation; numerical integration; and differentiation; solution of nonlinear equations; initial value problems in ordinary

differential equations. Error analysis. Certain algorithms are selected for programming. Three hours each week.

MAT 435. (535) Linear Programming (3) Prerequisite: Computer Science 111 or 121 and Mathematics 335. Methods and applications of optimizing a linear function subject to linear constraints. Theory of the simplex method and duality; parametric linear programs; sensitivity analysis; modeling and computer implementation. Three hours each week.

MAT 436. (536) Discrete Optimization (3) Prerequisite: Mathematics 435. Theory and applications of discrete optimization algorithms. Transportation problems and network flow problems; integer programming; computer implementation. Three hours each week.

MAT 451. (551) Topology I (3) Prerequisite: Mathematics 275 and 336. A study of the basic concepts of general topology. Metric spaces, continuity, completeness, compactness, connectedness, separation axioms, product and quotient spaces; additional topics in point-set topology. Three hours each week.

MAT 457. (557) Differential Geometry (3) Prerequisite: Mathematics 366 or 411. Theory of curves and surfaces in Euclidean space. Frenet formulas, curvature and torsion, arc length; first and second fundamental forms, Gaussian curvature, equations of Gauss and Codazzi, differential forms, Cartan's equations; global theorems. Three hours each week.

MAT 461. (561) Partial Differential Equations (3) Prerequisite: Mathematics 361 and 367. Theory and applications of linear partial differential equations. Elliptic, parabolic and hyperbolic equations; separation of variables; Fourier series; Green's functions; Sturm-Liouville problems. Three hours each week.

MAT 462. (562) Continuous Mathematical Models (3) Prerequisite: Mathematics 461, or consent of instructor. Emphasis on the interplay between representative mathematical concepts and selected scientific models. Mathematical topics may include Fourier analysis, calculus of variations, operator theory, perturbation theory, tensor analysis, stability theory, integral equations, and potential theory. Areas of application may include classical, fluid, continuous, celestial, and quantum mechanics, wave propagation, and diffusion. Three hours each week.

MAT 463. (563) Ordinary Differential Equations (3) Prerequisite: Mathematics 335 and 361. Advanced study of ordinary differential equations. Existence and uniqueness; systems of linear equations, fundamental matrices, matrix exponential; series solutions, regular singular points; plane autonomous systems, stability and perturbation theory; Sturm-Liouville theory and expansion in eigenfunctions. Three hours each week.

MAT 465. (565; Statistics 465/565) Applied Probability (3) Prerequisite: Mathematics 261 and Statistics 362. The formulation, analysis and interpretation of probabilistic models. Selected topics in probability theory. Conditioning, Markov chains, and Poisson processes. Additional topics chosen from renewal theory, queueing theory, Gaussian processes, Brownian motion, and elementary stochastic differential equations. Three hours each week.

MAT 471. Projects in Mathematical Modeling (3) Prerequisite: One of Computer Science 420, Mathematics 435, 461, or Mathematics/Statistics 465. Techniques of problem recognition and formulation, and mathematical solution and interpretation of results. Each student will construct a mathematical model under the supervision of the Applied Mathematics Committee and report on the investigation in written and oral form. Seminar format.

MAT 475. Topics in Mathematics (3) Prerequisite: Junior or senior standing and permission of instructor. Topics of current interest in mathematics not covered in existing courses. Three hours each week.

MAT 481. (581) Introduction to Mathematical Logic (3) Prerequisite: Mathematics 275 and 336. The formal study of truth and provability. Propositional calculus; predicate calculus. Gödel's completeness theorem, applications to formal number theory and incompleteness. Additional topics chosen from areas such as undecidability or nonstandard analysis. Three hours each week.

MAT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of the department chairman, a "B" or better average on all mathematics courses taken.

MAT 495. Seminar in Mathematics (1) Discussion of selected topics and problems. One hour each week.

MAT 499. Honors Work in Mathematics (2-3) Prerequisite: Eligibility for honors program. Individual study for honor students.

or 292 and 492; 294 and 494, see explanations on p.78.

Statistics Course Descriptions

(Department of Mathematical Sciences)

TT 205. Introduction to Statistics with Applications in the Social Sciences (3) Prerequisite: Mathematics 101, 111, or 115. (Designed for students majoring in the social sciences.) Graphical and numerical methods for univariate data; bivariate data organization and measures of association; contingency table analysis; sampling distributions; estimation and hypothesis testing; introduction to linear regression and correlation. Three hours each week.

TTL 205-51. Statistics Laboratory (1) Prerequisite or corequisite: Statistics 205 or 215, or the equivalent. Computers are used to illustrate the descriptive and inferential methods of Statistics 205 and 215. Emphasis is on the use of existing statistical packages such as SAS, BMD, MINITAB, and SPSS. No computer programming knowledge is required. Two hours each week.

TT 210. Introduction to Statistics with Applications in the Health Sciences (3) Prerequisite: Mathematics 111. Collection, tabulation and graphical representation of data. Measures of location and variation, measures of association and chi-squared distribution, correlation and regression, binomial, Poisson and normal distributions,

estimation and tests of hypotheses. Health care statistics, elementary computer skills in analysis of data and interpretation of computer printout. Three hours each week.

STT 215. Introduction to Statistics with Application in the Natural Sciences (3) Prerequisite: Mathematics 111 or 115. (Designed for students majoring in the natural sciences.) Graphical and numerical descriptive methods; random variables and probability distributions; estimation and hypothesis testing (large and small samples); linear regression and correlation; one-way analysis of variance; contingency tables and goodness of fit. Three hours each week.

STTL 215-51. Statistics Laboratory (1) Prerequisite or corequisite: Statistics 205 or 215, or the equivalent. Computers are used to illustrate the descriptive and inferential methods of Statistics 205 and 215. Emphasis is on the use of existing statistical packages such as SAS, BMD, MINITAB, and SPSS. No computer programming knowledge is required. Two hours each week.

STT 250. Introduction to Sampling Techniques (3) Prerequisite: Any introductory statistics course such as Statistics 205, 210, 215, Production and Decision Sciences 217, or Psychology 225. An introduction to sampling techniques intended for students in the social, behavioral, natural or health sciences. Simple random sampling, stratified random sampling, cluster sampling, and ratio and regression estimation. Three hours each week.

STT 262. Discrete Probability and Random Variables (2) Prerequisite: Mathematics 151 or 161. An introduction to random variables and probability distributions in the discrete case. Topics include descriptive statistics; elementary combinatorics; discrete sampling spaces and probability; mathematical expection; Tchebyshev's Theorem; conditional probability and independence; Bayes Theorem; joint, conditional and marginal distributions; common discrete probability models. Introduction to continuous random variables. Two hours each week.

STT 362. Continuous Probability and Statistics (2) Prerequisite: Statistics 262 and Mathematics 152 or 162. Continuous random variables and their distributions. Topics include functions of random variables; estimation and tests of hypotheses; regression and correlation; least square curve fitting. Two hours each week.

STT 410. (510) Applied Statistical Methods (3) Prerequisite: Statistics 205 or 215, or the equivalent. After a review of elementary statistics, the following major areas are studied: non-parametric methods; analysis of variance and experimental design and regression analysis. Three hours each week.

STT 430. (530) Introduction to Non-Parametric Statistics (3) Prerequisite: Statistic 362. Theory and methods of non-parametric statistics in the one-and two- sample problems and their comparisons with standard parametric procedures. Non-parametric tests for comparing more than two samples; tests of randomness and independence. Three hours each week.

STT 440. (540) Linear Models and Regression Analysis (3) Prerequisite: Mathematics 261 and 335 and Statistics 362. Theoretical introduction to the general linear model and its application to simple linear regression and multiple regression. Estimation and hypothesis testing of model coefficients; residual analysis; analysis of covariance. Three hours each week.

STT 465. (565; Mathematics 465/565) Applied Probability (3) Prerequisite: Mathematics 261 and Statistics 362. The formulation, analysis and interpretation of probabilistic models. Selected topics in probability theory. Conditioning, Markov chains, and Poisson processes. Additional topics chosen from renewal theory, queueing theory, Gaussian processes, Brownian motion, and elementary stochastic differential equations. Three hours each week.

STT 466-467. (566-567) Mathematical Statistics (3-3) Prerequisite: Mathematics 261 and Statistics 362. A rigorous introduction to mathematical statistics. Univariate and multivaritate probability distributions; conditional and marginal distributions; theory of estimation and hypothesis testing; limiting distributions and the central limit theorem; theory of sufficient statistics and the exponential class of probability density functions. Three hours each week.

STT 475. Topics in Statistics (3) Prerequisite: Senior standing or permission of instructor. Topics of current interest in Statistics not covered in existing courses. Three hours each week.

STT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of the department chairman, and a "B" or better average on all mathematical sciences courses taken.

STT 499. Honors Work in Statistics (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

MILITARY SCIENCE (ARMY ROTC)

(Department of Military Science)

Lieutenant Colonel Hanna, Chairman. Major Gillette; Major Frasure; Captain Mahood; Captain Montgomery.

The Army Reserve Officers' Training Corps at The University of North Carolina at Wilmington provides men and women, who meet the physical and mental requirements, the opportunity to become officers in the U.S. Army on active duty or the Army National Guard or U.S. Army Reserve.

Transfer and graduate students are eligible. All college disciplines are accepted. Students may enter the program at almost any time during their study at UNCW. The four programs offered include the Scholarship Program, the Four-Year and Two-Year programs, and the Simultaneous Membership Program with the Army National Guard or Reserves.

The Basic Course

MLS 101. Basic Military Skills I (1) An introduction to first aid, rappelling, self defense, drill and ceremonies, customs of the service and the organization of the Army. One laboratory hour each week.

MLS 102. Basic Military Skills II (1) Marksmanship, survival skills, water operations, rope bridges and leadership. Skills are practiced in an outdoor environment. One laboratory hour each week.

MLS 103. (Physical Education 102) Fundamentals of Hiking Climbing and Rappelling (1) Introduction to basic concepts, skills and techniques for outdoor travel. Emphasizes outdoor planning and preparation; effects of exposure on the human body, personal hygiene and foot care; aspects of team work; crossing obstacles; technical climbing; and rappelling.

MLS 103. (Physical Education 102) Basic Orienteering (1) Introduction to basic cross-country navigating using a topographic map, compass, and terrain identification in order to negotiate various orienteering courses. Administering orienteering recreational programs. One hour.

MLS 103. (Physical Education 102) Rifle Marksmanship (1) Introduction to basic principles and techniques of rifle marksmanship. Stresses familiarization in conducting rifle range exercises and provides an introduction to olympic style rifle team competition. One hour.

MLS 201. Small Unit leadership I (1) Introduction to small unit leadership, physical readiness training, characteristics and employment of US Infantry weapons. Also includes unit hot and cold weather injury prevention and the conduct of inspections. One laboratory hour each week.

MLS 202. Small Unit Leadership II (1) Basic map reading, day and night land navigation and orienteering in an outdoor environment. Introduction to the principles of war. One laboratory hour each week.

MLS 211. Basic Camp (4) Pass a physical fitness examination. Six week camp held at Ft. Knox, Kentucky, which is used to satisfy basic course prerequisite for enrollment into Advanced ROTC. Emphasis is on physical fitness, marksmanship, leadership training, tactical training of the individual soldier, first-aid, and the purpose and function of nuclear, biological, and chemical warfare equipment. Dismounted drill, military courtesy and the wearing of the Army uniform are also examined.

The Advanced Course

Prerequisite: One of the following: Three years of JROTC, a veteran with a favorable reenlistment code, completion of the Basic Course or Military Science 211, or the National Guard or Army Reservist Junior who has finished basic training. Students must maintain a 2.0 grade point average, pass a physical examination, and be a US citizen.

MLS 301. Advanced Military Skills (3) Land navigation, terrain analysis, NBC defense, communications procedure, first-aid, combat intelligence. Includes an overview of the Soviet Army and a discussion of the role of the NCO in the US Army. One laboratory hour each week.

MLS 302. Small Unit Tactics (3) Prerequisite: Military Sciences 301 or approval of chairman. A continuation of Military Science 301, designed to provide the student with practical military skills including military symbols, squad and platoon tactics, and a review of communications, weapons, and first-aid. One laboratory hour each week.

MLS 311. Advanced Camp (0) Prerequisite: Military Science 301 and 302 or approval of chairman. Six week camp at Ft. Bragg, North Carolina. Advanced leadership techniques, squad and platoon tactics, tactical training of the individual soldier, land navigation, physical fitness, first-aid, and NBC skills. In addition, students will be evaluated on their performance as potential junior officers throughout the camp. One MLS laboratory hour each week.

MLS 401. Staff and Management (3) Prerequisite: Military Science 301, 302, or approval of chairman. A study of the organization and functions of the military staff, i.e., the Commander, the Personnel Officer, the Intelligence Officer, the Operations Officer and the Supply Officer. Students prepare training schedules and present instruction to basic course cadets during leadership laboratory. One laboratory hour each week.

MLS 402. Military Justice (3) Prerequisite: Military Science 401, or approval of chairman. Advanced military subjects to include the military system of justice; also includes counseling techniques, unit administration, and methods of written and oral communications. There is a one-hour leadership laboratory conducted each week.

Military Science students enrolled in the Advanced Course must complete a variety of academic courses to enhance their professional military education. Students must complete one course in each of six fields of study:

1. Written Communication Skills
2. Human Behavior
3. Math Reasoning
4. Computer Literacy
5. Military History
6. Military Ethics

The first four of the above can be satisfied through the University basic studies program. Numbers five and six can be satisfied by taking History 300 and Philosophy & Religion 215, respectively. Substitutions for History 300 or Philosophy & Religion 215 must be approved by the chairman of the Department of Military Science. Only 13 credit hours of Military Science courses may count toward graduation.

PHILOSOPHY AND RELIGION

Dr. Megivern, Chairman. Dr. Altrichter, Dr. Conser, Dr. Gauthier, Dr. Habibi, Dr. McGowan, Dr. Schmid, Dr. Shinn, Dr. Turrisi, Dr. Wilson.

Requirements for a concentration in Philosophy and Religion for the B.A. degree:

I. B.A. degree with emphasis in Philosophy: Philosophy and Religion 101, 103, 110, 115, 201, 202, 400, and 15 additional hours including at least 9 at the 300-400 level.

II. B.A. degree with emphasis in Religion: Philosophy and Religion 101, 103, 110, 230 and either the Biblical sequence (235, 236) or the History sequence (238, 240) plus 400 and 15 additional hours including at least 9 at the 300-400 level.

Philosophy Course Descriptions

(Department of Philosophy and Religion)

P&R 101. Invitation to Philosophical Thinking (3) An introduction to various philosophers and philosophical problems from historical, critical, and other perspectives. Three hours each week.

P&R 110. Introduction to Logic (3) Introduction to the principles of logic including the rules of deduction, the categorical syllogism, induction, and fallacies. Initiation in computer logic programs. Three hours each week.

P&R 115. Introduction to Ethics (3) An introduction to fundamental principles, theories, and problems in ethics. Three hours each week.

P&R 201. History of Western Philosophy I (3) A survey of Western philosophical thought in ancient and medieval times. Emphasis on the Greek origins of the philosophical tradition. Readings from the Pre-Socratics, Plato, Aristotle, Roman philosophy and such Christian thinkers as Augustine and Thomas Aquinas. Three hours each week.

P&R 202. History of Western Philosophy II (3) A survey of Western philosophical thought from the beginning of the modern era to the present. Emphasis on the rationalist and empiricist traditions. Readings from such philosophers as Descartes, Spinoza, Locke, Hume, Kant and Russell. Three hours each week.

P&R 205. American Philosophy (3) A survey of American philosophical thought from colonial times to the present. Readings from such American thinkers as Jonathan Edwards, the Federalist authors, Thoreau, James, Dewey and Quine. Three hours each week.

P&R 211. Toward a Contemporary Philosophy of Man (3) An effort to clarify the meanings of man as he presents himself in our contemporary world; oriented toward a theory of education and of psychology. Three hours each week.

P&R 213. Existentialism (3) An introduction to major themes in existential thought such as freedom, authenticity, death of God, the meaning of life. Primary source readings from existential authors, e.g., Kierkegaard, Nietzsche, Heidegger, Sartre, Marcel. Three hours each week.

P&R 215. Applied Ethics (3) Examination of the principles and problems in the application of ethics to a particular area of concern. Topics will vary from one course offering to another. (Ethics in the World of Business; Bioethics; Military Ethics). Three hours each week.

P&R 218. Symbolic Logic (3) Fundamentals of an axiomatic logical system, including both the propositional calculus and the predicate calculus, consistency and completeness proofs, and mathematical induction. Three hours each week.

P&R 220. Philosophy & Science Fiction (3) A survey of the major philosophical themes explored in contemporary science fiction. Topics covered will include the nature and limits of science and technology, human nature, and the viability of alternative political arrangements. The emphasis will be on learning to identify the philosophical themes that underlie much of contemporary science fiction and to use these to develop a better understanding of the modern world. Readings will include both fiction and contemporary philosophy.

P&R 302. Plato (3) Prerequisite: Philosophy and Religion 101 or 201. Study of the Dialogues of Plato. Analysis of texts; contemporary interpretations. Three hours each week.

P&R 303. Aristotle (3) Prerequisite: Philosophy and Religion 101 or 201. An examination of Aristotle's philosophy through selected texts, supplemented with contemporary criticisms. Aristotle's criticisms of Plato; problems of interpretation. Three hours each week.

P&R 305. Medieval Philosophy (3) A survey of Islamic, Jewish and Christian philosophical thought in medieval times. Readings from such thinkers as Augustine, Avicenna, Averroes, Maimonides and Thomas Aquinas. Three hours each week.

P&R 310. (Political Science 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or the consent of instructor. Introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include: Natural law; historical, analytical and sociological jurisprudence; idealism, utilitarianism and legal realism; equity, justice, precedent, custom and law, and the relation of law and morality. Three hours each week.

P&R 313. Social and Political Philosophy (3) Prerequisite: Philosophy and Religion 101, 115, or consent of instructor. An exploration of philosophical issues and concepts central to an understanding of social and political life; e.g., function and cause, justice, liberty, equality, societal facts and laws, utopias, reason and political argument, political obligation and the public interest. Three hours each week.

P&R 316. The Philosophy of Art (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Investigation and exploration into both traditional and contemporary theories regarding the philosophy of art and its associated problems. Visual Arts, such as painting, sculpture, film, etc., will be examined. Three hours each week.

P&R 317. Epistemology (3) Prerequisite: Philosophy and Religion 101 or 201-202. Fundamental issues in theory of knowledge: nature of knowledge; reasoning, judgment; truth, certainty and probability. Three hours each week.

P&R 318. Metaphysics (3) Prerequisite: Philosophy and Religion 101 or 201-202. Fundamental issues and positions concerning the nature of reality: Theories of being, substance, causality. Three hours each week.

P&R 320. Philosophy of Mind (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Selected readings drawn from classical and/or contemporary sources bearing on problems of the self, such as the issue of personal identity and the concept of a person, the problem of the relation of mind and body and the question of the nature of consciousness. Three hours each week.

P&R 340. Philosophy of Religion (3) Prerequisite: Philosophy and Religion 101. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

P&R 345. Philosophy of Science (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Fundamental issues in the philosophy of science; the nature of scientific method; modes of verification and the role of paradigms. Three hours each week.

P&R 400. Colloquium for Majors (3) Prerequisite: Junior or senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors in junior or senior year; open to qualified non-majors.

P&R 401. The Philosophy of Immanuel Kant (3) Prerequisite: Philosophy and Religion 101 or 202. An examination of the thought and influence of Kant in his three great critiques, especially the first, the *Critique of Pure Reason,* as well as in his *Groundwork of the Metaphysics of Morals.* Three hours each week.

P&R 405. Contemporary Philosophical Thought (3) Prerequisite: Philosophy and Religion 101 or 202. Primary source study of the various philosophers of the 20th century, representing the major schools or movements. Three hours each week.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

P&R 495. Seminar (1-3) Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary sources of student-selected philosophic and/or religious problems. Three hours each week.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Religion Course Descriptions

(Department of Philosophy and Religion)

P&R 103. Introduction to Religion (3) Religion as a field of study; major modes of religious expression; chief issues in religious thought and experience; the search for method since the Enlightenment critique; contemporary developments. Three hours each week.

P&R 125. Great Books of the World's Religions (3) Selections from classic writings of both Western and Eastern religions, including Hebrew Bible, the New Testament, the Qur'an, and Buddhist and Hindu scriptures. Examination of their central ideas and values as well as their development and acceptance as sacred scriptures.

P&R 140. Research Tools for Historical and Textual Criticism—Hebrew (3) Basic study of the Hebrew language with special attention to that of the Old Testament. Three hours each week.

P&R 141. Research Tools for Historical and Textual Criticism—Greek (3) Basic study of the Greek language with special attention to that of the New Testament. Three hours each week.

P&R 230. Judaism, Christianity and Islam (3) Survey of the three major Abrahamic faiths; the origins, beliefs and practices of these "people of the Book;" history of their interactions and influence on Western Culture. Three hours each week.

P&R 231. Primitive and Classical Religions (3) A survey of primitive religion as revealed both in archaeological research and remaining primitive customs; examination of classical faiths of Egypt, Mesopotamia and ancient Europe. Three hours each week.

P&R 232. Asian Religions (3) A survey of Hinduism, Buddhism, Taoism, and Confucianism; historical aspects, basic insights, contemporary relevance. Three hours each week.

P&R 235. Introduction to the Old Testament (3) Historical study of the Hebrew, Canaanite, Sumerian, Babylonian, and Egyptian cultures, based upon primary literary and archaeological sources. Three hours each week.

P&R 236. Introduction to the New Testament (3) Historical survey of the canonical Christian literature; illustration of contemporary methods of text-criticism, literary-criticism, form-criticism, and redaction-criticism; focus on results of modern scholarship in appreciating the Gospels and their function in the early Christian community. Three hours each week.

P&R 238. History of Christianity I: Early and Medieval (3) Survey of the basic development of the Christian church from its foundation to the Protestant Reformation. Emphasis on major thinkers and pivotal events that determined the historical trends. Three hours each week.

P&R 240. History of Christianity II: Modern (3) Survey of the history of Christianity from the Reformation to the present. Accent on the contributions of the chief theologians and the particular problems raised by "modernity" since the 17th century. Three hours each week.

P&R 242. Religion in America (3) A survey of religious thought from colonial times to the present; representative Protestant, Catholic, and Jewish thinkers; the phenomenon of "civil religion," church involvement in social and political issues. Three hours each week.

P&R 243. Afro-American Religion (3) Study of the religious life of black American communities, with concentration on independent traditions, sects, cults, and a sampling of major thinkers and issues. Three hours each week.

P&R 247. Hinduism (3) A survey of Hindu religion and philosophy over its three thousand year history. Examines myths, philosophies, rituals, meditation teachings, and social thought. Three hours each week.

P&R 255. Historical Geography of Middle East (Biblical Era) (3) Prerequisite: Geography 145 or Philosophy and Religion 235 or consent of instructor. Geographical, archaeological, historical, and geological investigation of the physical environment and cultural landscapes that provide the settings for the evolution of the population, economics, and cultures of southwestern Asia. Three hours each week.

P&R 334. Old Testament Literature (3) Analysis and interpretation of a particular part of the Hebrew Scriptures. Topics will vary from one course offering to another. (The Torah; the Prophets; the Writings). Three hours each week.

P&R 336. New Testament Literature (3) Analysis and interpretation of a particular part of the New Testament. Topics will vary from one course offering to another. (The Gospels; the Acts of the Apostles; the Johannine works; the Letters of Paul). Three hours each week.

P&R 337. Apocrypha and Pseudepigrapha (3) Prerequisite: Philosophy and Religion 235 or 236. Analysis of the major Jewish and Christian writings related to but excluded from the Bible, including histories, apocalypses, testaments, prayers, moral tales, and wisdom books. Three hours each week.

P&R 339. Psychology of Religion (3) A history of the interaction of modern psychology with the Western religious tradition from William James to the present; Freud and Jung, Allport and Menninger, Tillich and May, Hiltner and Pruyser, on such areas as faith and doubt, prayer and prejudice, symbol and guilt, authority and integration of personality. Three hours each week.

P&R 340. Philosophy of Religion (3) Prerequisite: Philosophy and Religion 101 or 103. Examination of the basic problems found in Western Philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

P&R 350. Religious Reform in Modern America (3) Prerequisite: Philosophy and Religion 103 or consent of instructor. Examination of religious thought and action concerning social change in modern America. Topics include urban revivalism, labor, civil rights, and peace movements. Specific attention given to differing interpretations of scripture, church teachings, and religious identity.

P&R 352. Southern Religion (3) A study of religion in the Old South until 1865. Topics include: revivalism; the system of slavery; the Southern way of life; and the religious beliefs and practices of blacks and whites. Three hours each week.

P&R 400. Colloquium for Majors (3) Prerequisite: Junior and senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors. Three hours each week.

P&R 421. Contemporary Religious Thought (3) Prerequisite: Philosophy and Religion 103. Primary source study of principal religious thinkers of the 20th century, especially within Judaism and Christianity. Three hours each week.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

P&R 495. Seminar (1-3) Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary source of student-selected philosophic and/or religious problems.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility honors program and senior standing. Independent study for honors students.

PHYSICS

Dr. Alexanian, Chairman. Dr. Clator, Dr. Davis, Dr. Haywood, Dr. Hernandez, Dr. Karim, Dr. Olszewski.

Requirements for a concentration in Physics for the B.A. degree:
Physics 201-202, 215, 225, 260, 321, 335, 400 (1 semester hour), 495, and two 300-400 level Physics courses; Chemistry 101-102 with lab; Mathematics 161-162 and 261. A "C" or better on each Physics course.

Requirements for a concentration in Physics for the B.S. degree:
Physics 201-202, 215, 311-312, 321-322, 335, 345, 400 (3 semester hours), 411-412, 455, 495, and two of the following: 415, 425, 435, or 445; Chemistry 101-102 with lab; Mathematics 335, 361 and one additional three semester hour Mathematics course at the 300-400 level.
A "C" or better on each Physics course.
Note: Students interested in the B.S. degree in Physics are advised to take the Physics 201-202 sequence in the freshman year.

Physics Course Descriptions

PHY 101-102. Elementary College Physics (4-4) Corequisite: Mathematics 111. Mechanics, heat, sound, light, electricity and magnetism, and introduction to modern physics. Three lecture and two laboratory hours each week.

PHY 105. Introductory Physics (4) Terminal course designed to cover basic principles of physics. May not be taken for credit if student has already successfully completed Physics 205. Three lecture and two laboratory hours each week.

PHY 107. Physics of Music (4) Study of the scientific basis of music. Three lecture and two laboratory hours per week.

PHY 170. Photography (3) Techniques and procedures in the use of photographic materials and equipment. Two lecture and two laboratory hours each week.

PHY 201-202. General Physics (5-5) Corequisite: Mathematics 161-162. 201: Mechanics, heat, wave motion and acoustics. 202: Electrostatics, magnetism, circuits, electrodynamics, optics, atoms, electrons, radioactivity and nuclear physics. Four lecture and two laboratory hours each week.

PHY 205. Basic Concepts in Physics (3) An introductory course covering a broad spectrum of topics in physics: Mechanics; properties of matter; heat; sound; electricity and magnetism; light; atomic and nuclear physics; and relativity and astrophysics. May not be taken for credit if student has already successfully completed Physics 105. Three hours each week.

PHY 206-207. Problems in General Physics (2-2) Prerequisite: Physics 101-102 and corequisite: Mathematics 161-162. Problems in general physics and their applications. Two problem sessions each week.

PHY 211-212. Electric Circuits (4-4) Corequisite: Mathematics 161. Fundamental laws of electric circuits; transient and steady-state sinusoidal analysis of linear circuits by complex frequency; phasor and two-port networks. Three lecture and three laboratory hours each week.

PHY 215. Special Relativity (1) Prerequisite: Physics 201 and Corequisite: Physics 202. The geometry of spacetime; relativistic momentum, energy, kinematics, and dynamics; the physics of curved spacetime; and the effect of relativity on electricity. One hour each week.

PHY 225. Electronics (3) Prerequisite: Consent of instructor. An introduction to electronics with emphasis on instrumentation and techniques used in scientific laboratories. Two lecture and two laboratory hours each week.

PHY 260. Introduction to Astronomy (3) Descriptive course in principles, theories, and techniques of astronomy. Three lecture hours each week and occasional night viewing.

PHY 305. Science for Elementary Teachers (3) Open only to students concentrating in elementary education and to in-service teachers. Biological and physical science areas appropriate for inclusion in elementary schools. Three hours each week.

PHY 311-312. Mathematical Physics (3-3) Prerequisite: Physics 202. An introduction to the mathematical techniques useful in physics: vector analysis, operator and matrix analysis; functions of a complex variable and calculus of residues; differential equations, special functions of mathematical physics; Fourier series and transforms, eigenfunctions and Sturm-Liouville equation; Green's functions; variational methods; and perturbation theory. Three hours each week.

PHY 321-322. Mechanics (3-3) Prerequisite: Physics 202. Elements of Newtonian mechanics, mechanics of continuous media, Lagrange's equation, rotation of a rigid body. Three hours each week.

PHY 335. Introduction to Modern Physics (3) Corequisite: Physics 215. Survey of modern atomic and nuclear physics, including historical development, and wave mechanics. Three hours each week.

PHY 345. Quantum Mechanics (3) Prerequisite: Physics 335 and corequisite: Mathematics 361. An introduction to the basic principles of quantum mechanics. Topics include operators; symmetry; orbital and spin angular momentum; and applications to simple systems. Three hours each week.

PHY 400. Advanced Laboratory (1) (May be repeated for up to three hours credit) Prerequisite: Consent of instructor. Designed to acquaint students with the various laboratory techniques, error analysis and reduction of data by digital computer. One hour each week.

PHY 411-412. Electricity and Magnetism (3-3) Prerequisite: Physics 202 and corequisite: Mathematics 261. Electric and magnetic field theory; Poisson's and Laplace's equation; harmonic methods, special methods for solution of electrostatics problems, material media and boundary value problems; electromagnetic waves and radiation; electromagnetic laws of optics. Three hours each week.

PHY 415. Solid State Physics (3) Prerequisite: Physics 335. A study of the basic properties of solids--crystal structure; mechanical, thermal and electromagnetic properties as determined by the phonon, electron, and magnon characteristics. Three hours each week.

PHY 425. Atomic and Molecular Physics (3) Prerequisite: Physics 345. The quantum theory of atomic and molecular structure and spectra. Topics include relativistic and electromagnetic interactions; the hydrogen atom, the helium atom, multielectron atoms; radiative and Auger transitions, selection rules; diatomic and simple polyatomic molecules. Three hours each week.

PHY 435. Nuclear Physics (3) Prerequisite: Physics 345 or consent of instructor. Introduction to properties of the nucleus; natural and artificial radioactivity; nuclear reactions and particle accelerators. Three hours each week.

PHY 445. Optics (3) Prerequisite: Physics 202 and Mathematics 261. Physical and geometrical optics. Huygen's principles, electromagnetic theory of light. Three hours each week.

PHY 455. Thermal Physics (3) Prerequisite: Physics 335 or consent of instructor. Principles of thermodynamics and heat transfer; response of molecules to temperature effects illustrated by introduction to kinetic theory and statistical mechanics. Three hours each week.

PHY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PHY 495. Physics Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in physics.

PHY 499. Honors Work in Physics (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492; 294 and 494, see explanations on p. 78.

POLITICAL SCIENCE

Dr. Dixon, Chairman. Dr. Ahmad, Dr. Johnston, Dr. Jones, Dr. Lowery, Dr. Sheridan, Dr. Wagoner.

Requirements for a concentration in Political Science for the B.A. degree: Forty-two hours of Political Science which must include 101-102, 111, 210 and 211. Eighteen hours must be at the 300-400 levels and at least one 300-400 level course must be taken in each of the following sub-fields: American Government and Politics, Political Theory and

Methodology, International Relations, and Comparative Government. Students are expected to complete the required lower level courses before the upper level ones.

A "C" grade point average on all 300-400 level Political Science courses is required, and at least a "C" grade is mandatory in the specific courses required in the department listed above.

Required collaterals: Twenty four hours selected from departmentally approved courses in a least four of the following disciplines: Anthropology, Criminal Justice, Economics, Environmental Studies, Geography, History, Philosophy, Psychology, Social Work, Sociology, and Speech and Communication.

A knowledge of the skills of research or of a modern foreign language is required. This can be demonstrated by either of these methods: passing the Statistics in the Social Sciences course (STT205) or passing six semester hours in one of the modern foreign languages chosen from the following courses: 101, 102, 201, 202, or upper level courses for which 202 is a prerequisite.

Students planning to do graduate work are urged to study a modern foreign language and acquire a basic knowledge of Computer Science, Statistics and Mathematics through the calculus.

Political Science Course Descriptions

(Department of Political Science)

PLS 101-102. American National Government (3-3) 101 focuses upon basic principles, institutions and functions such as federalism, separation of powers, civil liberties, and judicial review. 102 introduces the political environment of public opinion, political parties and interest groups and traces its impact upon national policy areas, such as civil rights, the economy, and national defense.

PLS 111. Politics and Government in Global Perspective (3) A survey from a cross-national, comparative perspective of politics and governmental institutions within and among nation-states. Attention will also be given to the role of political theory and ideology in the governance of states. Three hours each week.

PLS 202. Contemporary Political Issues (3) An examination of important domestic and international political issues and their relationship to the overall political process. Topics include arms control, affirmative-action, the media and politics, social welfare policy, U.S. policy toward the Third World, and religion and politics. Three hours each week.

PLS 206. American State Government and Politics (3) A survey and analysis of the organization, functions, and political processes of the American states. Three hours each week.

PLS 207. American Urban Government and Politics (3) A study of the structure, functions, political processes, problems and trends in American city and metropolitan government and politics. Three hours each week.

PLS 210-211. Research Methods in Political Science (3-3) An introduction to the rationale and application of basic methods of political research. PLS 210 focuses on library research, the information sources of government and politics and how to

use them. PLS 211 introduces quantitative methods - the principles, applications, and limitations of statistical and computer analysis of political phenomena. Three hours each week.

PLS 300, 301. American Constitutional Law (3,3) Prerequisite: Political Science 101. Analytical study of U.S. Supreme Court decisions affecting separation of powers and individual rights. 300: the powers of the judicial, executive, and legislative branches of national government; the relationships among these branches; and the federal system. 301: individual rights and liberties other than procedural rights of persons involved with the criminal justice system. Three hours each week.

PLS 302. Public Opinion and Democracy (3) Prerequisite: Political Science 211 or consent of instructor. An examination of the origin, content, and policy impact of public opinion in democratic nations, with major emphasis on the contemporary American experience. Three hours each week.

PLS 303. Elections and Voting Behavior (3) Prerequisite: Political Science 211 or consent of instructor. An evaluation of the impact of citizen beliefs and preferences on election outcomes. The course is structured around a critical examination of the assumptions, findings and interpretations of the major voting studies since World War II. Three hours each week.

PLS 304. Introduction to Public Policy Analysis (3) Prerequisite: Political Science 101. A study of the theories and methods of analyzing and explaining public policy and the substance of recent domestic policies in the areas of public finance and human and physical resources, including welfare, education, protection of the environment, housing, health, urban renewal and transportation. Three hours each week.

PLS 305. The Constitution and the Criminal Justice System (3) Prerequisite: Political Science 101. Study of U.S. Supreme Court decisions on rights of suspects, defendants, witnesses, and convicted criminals. Three hours each week.

PLS 307. The American Legislature (3) Prerequisite: Political Science 101. Functional study of legislative bodies and lawmaking. Among the topics studied will be the role of legislatures; the impact of constituencies, parties, interest groups, interpersonal relationships and other pressures on legislators; legislative structure; and the decision-making process. Three hours each week.

PLS 308. Public Administration (3) Prerequisite: Political Science 101. Introduction to public administration in the United States. Nature and scope of public administration, public interest in the administrative process, role of administrators, formal and informal organization, public personnel and financial management. Three hours each week.

PLS 309. The American Chief Executive (3) Prerequisite: Political Science 101. An examination of the concept of a political chief executive as a coordinate member, with legislature and courts, of a government team. Emphasis will be placed on the powers, roles, decision-making processes, and institutional development of the offices of president, governor, and mayor. Three hours each week.

PLS 310. (Philosophy 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or consent of the instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include natural law; historical, analytical and sociological jurisprudence; idealism; utilitarianism; legal realism; equity, justice, precedent, custom and law; and the relation of law and morality. Three hours each week.

PLS 311. (Sociology 311) Techniques of Public Opinion Polling (3) Prerequisite: Political Science 211 or consent of instructor. Basic skills in all phases of public opinion polling; issue focus; questionnaire construction; sample selection, interview techniques; elementary data analysis; interpretation and presentation of results. Opinion polls of current political and social issues conducted as class projects to develop these skills, Three hours each week.

PLS 312. Scope and Methods of Political Science (3) Prerequisite: Political Science 102, 111, and 211. A synthesis of the theoretical questions, techniques, and approaches in the sub-fields of Political Science, e.g. American Politics, Comparative Politics, International Relations, Political Behavior, Public Law and Political Theory.

PLS 313. Early Political Thought (3) An introduction to the origin and development of political theory from the 5th Century B.C. through the medieval era. Emphasis will be placed on the political ideas of Plato, Aristotle, the Epicureans, the Stoics, Cicero, Augustine, medieval philosophers, and Aquinas in order to discover the recurring themes of political inquiry. Three hours each week.

PLS 314. Modern Political Thought (3) A critical examination of political ideas from 1500 to 1900 with special attention to those of Machiavelli, Hobbes, Locke, Rousseau, Montesquieu, Hume, Burke, Hegel, Bentham, Marx, the Mills, Spencer, T.H. Green and Nietzsche. Three hours each week.

PLS 315. Contemporary Political Ideologies (3) A study of the concept of ideology and its significance in the modern world. Systematic analysis of the major political ideologies of the 19th and 20th centuries with emphasis on democracy, communism, fascism, nationalism, anarchism, and the New Left. Three hours each week.

PLS 316. Women and Politics (3) Prerequisite: Political Science 111 or 101 or consent of instructor. An introduction to political perspectives on sex role differentiation. Among the topics to be discussed will be political socialization of women in ancient and modern society; women's roles in politics and government; political consequences of women's entry into the work force; and contemporary issues in the women's movement. Emphasis will be placed throughout on comparative political analysis. Three hours each week.

PLS 330. Political Systems of Africa (3) The governments and politics of selected sub-Saharan African states. A survey from colonial days to the present with emphasis on contemporary economic, social and political problems. Three hours each week.

PLS 331. Politics in Developing Nations (3) An examination of the political, economic, and social problems confronting developing nations. Attention will be given to such issues as cultural pluralism, one-party states, military dictatorships, and U.S. relations with the developing world. Three hours each week.

PLS 335. European Political Systems (3) Political institutions and processes of selected European countries, including Great Britain, France and Germany. Three hours each week.

PLS 336. Political Systems of the Soviet Union and Eastern Europe (3) A comparative study of the political institutions and processes of the Soviet Union and the eastern European Countries; the post-Stalin dynamics and the nature and significance of contemporary changes. Attention will be given to their foreign relations, especially with Communist China. Three hours each week.

PLS 338. Political Systems of the Middle East (3) The governments and politics of the Middle East with emphasis on the changes that have occurred since 1945. A detailed examination of the forces that have shaped contemporary Middle Eastern politics: Islam, nationalism, modernization, and current political trends. The political institutions and processes and the domestic and foreign policies of selected countries will be studied. Three hours each week.

PLS 339. Political Systems of Asia (3) The political systems of selected Asian countries. Special emphasis on the contemporary political, social and economic problems of India, Pakistan, Japan, China, Indonesia and other Asian countries. Three hours each week.

PLS 340. Blacks in American Politics (3) Prerequisite: Political Science 111 or 101 or consent of instructor. A study of American political institutions and processes through the eyes of Black America. This study will analyze the power structure in the black community, dissent and protest, black participation in the political system, black leaders and politicians and their politics, and the uniqueness of black politics as compared with the wider spectrum of the political system. Three hours each week.

PLS 405. American Parties and Pressure Groups (3) Prerequisite: Political Science 211 or consent of instructor. An historical and analytical treatment of the appearance and realignment of political parties during the five successive "national party systems" since the beginning of the republic. Special emphasis is given to the question of contemporary party disarray and potential realignment. Three hours each week.

PLS 406. Contemporary Southern Politics (3) Prerequisite: Political Science 211 or consent of instructor. An examination of recent developments throughout the American South and their impact on national politics. Topics covered include southern political culture, the decline of the one-party system, and the changing roles of blacks and organized labor. Emphasis is placed upon independent research projects involving student analysis of census, election return, and public opinion survey data. Three hours each week.

PLS 407. The American Judicial Systems (3) Prerequisite: Political Science 101. Analysis of the organization, powers and role of the judiciary. Topics studied will include the political role of American judges, factors influencing judicial policy-making, selection of judges, the role of lawyers, and socio-metric relationships within the judiciary. Three hours each week.

PLS 415. American Political Thought (3) American political thought from the colonial period to the present. Three hours each week.

PLS 422. Contemporary American Foreign Policy (3) Prerequisite: Political Science 101 or 111. The roles and interrelationships of Congress, the media, public opinion, the President, the Secretaries and Departments of State and Defense, and the intelligence community are examined. Emphasis is placed on the content and the dynamic aspects of the process of policy formulation and implementation. Three hours each week.

PLS 423. National Security Policy (3) Prerequisite: Political Science 101. A study of formulation of security policy, including the roles of the executive and legislative branches and of non-governmental factors; evolution of changing assumptions, strategies, and goals; the nature of U.S. security requirements, U.S. military commitments abroad, and the cost of strategies based on weapons superiority, arms control, and disarmament.

PLS 425. International Politics (3) Nature of international relations including analyses of basic factors motivating national policies; the United Nations and other international organizations as institutions for promoting peace and welfare in a world of sovereign states. Three hours each week.

PLS 426. International Law (3) Prerequisite: Political Science 101. Nature, development and basic concepts of international law. Examination of the scope, sources and sanctions of international law; its relation to municipal law; the rights and duties of states and individuals; methods of settling international disputes. Characteristic cases used as illustrations. Three hours each week.

PLS 427. International Organizations (3) Prerequisite: Political Science 111 or 101 or consent of instructor. A survey of the evolution, objectives and methods of various types of regional and universal organizations and their role in contemporary international relations. Special emphasis will be placed on the principal functions and agencies of the United Nations and the European economic community. Three hours each week.

PLS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PLS 495. Departmental Seminar (1-3) Prerequisite: Six hours of Political Science and consent of department chairman. Consideration of special topics in Political Science. May be repeated for additional credit.

PLS 498. Internship in Political Science (3-6) Prerequisite: Political Science 111, 101, 211, and at least one of the following: Political Science 300, 304, or 308. This course is open only to persons taking a concentration in political science who are classified as juniors or seniors. The internship involves an experiential learning in selected public or private agencies or with an individual which allows the student to utilize academic training while learning from a practical field experience. A formal research project is a major part of the internship.

PLS 499. Honors Work in Political Science (2-3) Prerequisite: Eligibility for honors program and junior or senior standing. Individual study for honors students.

For 292 and 492; 294 and 494, see explanations on p. 78.

PSYCHOLOGY

Dr. Williams, Chairman. Dr. Applefield, Dr. Bradley, Dr. Brown, Dr. Bruce, Dr. Galizio, Dr. Jackson, Dr. Johnson, Dr. Kishton, Dr. Kowal, Dr. Lakey, Dr. Lamb, Dr. Newton, Dr. Overman, Dr. Phillips, Dr. Pilgrim, Dr. Puente, Dr. Sanders.

Requirements for a concentration in Psychology for the B.A. degree: Psychology 105, 225, 355, 405, one course from each of the six categories listed below, and nine additional hours in Psychology courses at the 300-400 level. Category 1: Psychology 220, 221, 320, 323 or 324. Category 2: Psychology 410, 412, 417. Category 3: Psychology 418, 456 or 457. Category 4: Psychology 346, 347 or 365. Category 5: 336, 337 or 425. Category 6: Psychology 350, 352, 450, or 465. No more than one course with a grade of "D" can count toward the requirements for a concentration in Psychology, and there must be a "C" or better average across all courses attempted within the department. Twelve hours of collateral courses, including one in biology and selected from a list available in the departmental office are required.

Psychology Course Descriptions

PSY 105. General Psychology (3) Principles of psychology with emphasis on scientific methods used in studying human behavior. Three hours each week.

PSY 110. Self-Management and Self-Motivation (3) Techniques and concepts to provide knowledge, skills, and attitudes to improve performance. Development in coping skills, including determination and modification of motivation, self-management and time-management skills, and efficient methods of learning and organizing materials and solving problems. (Not for Social Science General Degree requirement or Psychology major credit.)

PSY 145. Psychology Applied to Human Life (3) A study of psychological principles and findings as applied to particular fields of endeavor and to various stress situations. Primary emphasis will be on the problem of human adjustment. Three hours each week.

PSY 216. Educational Psychology (3) Prerequisite: Psychology 105 is suggested. Study of the application of psychological theories and principles in educational settings. Three hours each week.

PSY 220. Child Psychology (3) The study of human psychological development through childhood and early adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development. Three hours each week.

PSY 221. Adolescent Psychology (3) The study of human psychological development from late childhood through adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development. Three hours each week.

PSY 225. Introductory Statistics for the Behavioral Sciences (4) Prerequisite: Psychology 105 and three credit hours in mathematics. Introduction to the statistical techniques most often used by behavioral scientists for either descriptive purposes

or hypothesis testing. Parametric techniques are emphasized, but nonparametric tests are included. Three lecture and two laboratory hours each week.

PSY 245. Drugs and Behavior (3) Prerequisite: Three semester hours credit in Psychology. An examination of the psychological aspects of drug use and abuse. Emphasis will be on the effects of major psychoactive drugs (including alcohol) on behavior, the psychological determinants of drug use, and treatment of drug abuse. Three hours each week.

PSY 262. Psychology of Consciousness (3) Prerequisite: Psychology 105. A study of the mental processes which occur during various states of human consciousness such as sleep, biofeedback and meditation. Emphasis on the research and theories of brain processes during states of consciousness. Three hours each week.

PSY 265. Human Sexual Behavior (3) Prerequisite: Three hours of Psychology, excluding Psy 110. Examination of the psychological aspects of human sexuality with emphasis on psychosexual development and behavior. Includes discussion of causative factors and treatment of sexual disorders and deviations. Three hours each week.

PSY 275. Psychology of Sex Differences (3) Prerequisite: Psychology 105 or 145. An examination of biological and learned determinants of sex-typed behaviors, current research findings on sex-typed habits and attitudes, and their implications for interpersonal relationships and personal adjustment. Three hours each week.

PSY 311. Psychology of Language (3) Prerequisite: Psychology 105. An introduction to theory and research concerning human language use. Topics will include the nature of human linguistic competence, the perception of speech, the comprehension of speech, memory for verbal information, the production of speech, and the biological basis of human language. Three hours each week.

PSY 320. Developmental Psychology (3) Prerequisite: Psychology 105 or 220. Examination of various areas of behavior (motor, social and intellectual) and theoretical explanations of their development. Emphasis on underlying psychological and biological processes. Three hours each week.

PSY 322. Psychology of Exceptional Children (3) Prerequisite: Psychology 105 or 220. A study of the physical, cognitive, and personality characteristics of the major types of childhood exceptionality, including high intelligence and creativity, mental retardation, learning disabilities, emotional disorders, language impairments, and sensory and physical handicaps. Issues such as assessment, etiology, family relations, and treatment will be discussed. Three hours each week.

PSY 323. Lifespan Human Development (3) Prerequisite: Three hours in Psychology. An exploration of the variables and factors underlying human growth and development across the lifespan. Physical, cognitive, social, emotional, and sexual development are emphasized. Three hours each week.

PSY 324. Psychology of Adulthood and Aging (3) Prerequisite: Three hours in Psychology, excluding Psy 110. A developmental approach to the portion of the lifespan from young adulthood through sensescence. Emphasis on the interaction of psy-

chological, psychosocial and physiological aspects of development. Three hours each week.

PSY 336. Industrial Psychology (3) Prerequisite: Psychology 105. The study of psychological techniques in personnel selection and placement, merit rating, reduction of accidents, training, morale, and other factors utilized in industrial work. Three hours each week.

PSY 337. Vocational Psychology (3) Prerequisite: Psychology 105 or permission of instructor. The study of individual vocational behavior and development. Topics include the history of vocational psychology, theories of vocational development and choice, as well as stimulus, organismic, and response variables correlated with the choice process. Attention is directed toward theories and research concerning the meaning of vocational motivation and vocational adjustment, as well as the prediction of vocational success and satisfaction. Systems for defining vocational problems are included. Three hours each week.

PSY 346. Psychology of Personality (3) Prerequisite: Psychology 105. A study of the basic facts concerning the structure, organization, and adjustmental mechanisms of personality. Three hours each week.

PSY 347. Psychopathology (3) Prerequisite: Psychology 105. The study of behavioral pathology. Emphasis will be placed on the underlying factors of the neuroses, psychoses, and character disorders. Three hours each week.

PSY 350. Principles of Behavioral Change (3) Prerequisite: Psychology 105. Application of the principles of behavioral control in interpersonal, educational, and clinical settings. Primary emphasis will be on behavioral modification techniques such as contingency management, desensitization, biofeedback, etc.

PSY 352. Behavioral Medicine (3) Prerequisite: Psychology 105 or 145. Integrates psychological and biomedical knowledge relevant to physical health and illness. Describes the interaction of psychological phenomena with the epidemiology, etiology, pathogenesis, treatment, and rehabilitation of physical disorders. Three hours each week.

PSY 355. Introduction to Experimental Psychology (4) Prerequisite: Psychology 225. Basic principles of psychological research design and evaluation, including techniques of data collection and analysis, and conduct, interpretation, and reporting of various types of psychological research. Experimental research is emphasized. Three lecture and three laboratory hours each week.

PSY 365. Social Psychology (3) Prerequisite: Psychology 105. The study of individual human behavior as a function of the influence of other persons. Emphasis on the psychology of person perception, interpersonal communication and relationships, attitude formation and change, and small group behavior. Three hours each week.

PSY 366. Psychology of Marriage and Family (3) Prerequisite: Three hours of Psychology. The study of personality development within the marriage and family including recent theoretical and empirical findings on courtship, interpersonal attrac-

tion, marriage contract, and the various stages of the family life cycle. Communication, familial functioning and dysfunctioning are emphasized. Three hours each week.

PSY 370. (Environmental Studies 370) Environmental Psychology (3) Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of this environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment. Three hours each week.

PSY 405. History and Systems of Psychology (3) Prerequisite: Fifteen semester hours credit in psychology. History of psychology relative to current trends. Three hours each week.

PSY 410. Cognitive Psychology (4) Prerequisite: Psychology 355. Introduction to theories and research related to human cognition. Memory, attention, problem solving, and thinking are emphasized. Three lecture and three laboratory hours each week.

PSY 412. Sensation and Perception (4) Prerequisite: Psychology 355. Survey of sensory and perceptual processes, techniques for measuring sensations and perceptions, and theories of perception. Psychological, anatomical, physiological, and environmental factors important in determining how we perceive the world are examined. Demonstrations will introduce students to interesting perceptual phenomena. Three lecture and three laboratory hours each week.

PSY 417. Psychology of Learning (4) Prerequisite: Psychology 355. Study of the basic facts related to the learning process. Effects of reinforcement, extinction, generalization and discrimination, verbal learning and retention, as well as other phenomena, are considered. Three lecture and three laboratory hours each week.

PSY 418. Motivation and Emotion (3) Prerequisite: Psychology 105. Psychological theory and research in the areas of motivation and emotion. Basic as well as more complex motive states will be examined as they arise from physiological needs and from learning and cognitive processes. Data from animal as well as human studies will be considered. Three hours each week.

PSY 422. Child Psychopathology (3) Prerequisite: Psychology 105 and either Psy 220, 322, or 420. Advanced study of child psychopathology emphasizing behavioral, biological, and psychodynamic approaches. The major disorders of childhood will be compared in terms of etiology, manifestations, and treatments. Low incidence and multiple-handicapping conditions will also be considered. Three hours each week.

PSY 425. Psychological Tests and Measurements (4) Prerequisite: Psychology 105 and 225 or consent of instructor. Introduction to theory and practice of test construction, including a survey of intelligence, achievement and personality tests and their applications. Three lecture and two laboratory hours each week.

PSY 449. Psychology of Death (3) Prerequisite: Psychology 105. A study of psychological aspects of death and dying. Man's conceptualization of and behavior toward his own demise will be studied. Special emphasis will be placed on the behavioral context surrounding terminal illness, suicide, and homicide. Psychological aspects of gerontology will also be considered. Three hours each week.

PSY 450. Introduction to Counseling (3) Prerequisite: Psychology 346 or 347. The major historical and contemporary theories of counseling including Freudian, client-centered, behavioristic and existential will be reviewed. Examination of each theory will be accompanied by demonstration and role-play situations in which the elements of each theory are explored. Three hours each week.

PSY 451. Supervised Counseling Practice (3) Prerequisite: Psychology 346, 347 and 450 and consent of instructor. This course will provide for supervision of student practice in application of counseling skills and techniques in a variety of in-service situations. The student will participate in supervised counseling experiences in local social service agencies. The emphasis will be upon practice of skills combined with regular consultation with the supervisor. May be repeated once for additional credit. Three hours each week.

PSY 452. Ethical Principles in Psychology (1) Prerequisite: Permission of the instructor. A study of the ethical considerations involved in counseling and psychotherapy, psychological testing, and the use of human subjects in research.

PSY 455. Advanced Psychological Research (3) Prerequisite: Psychology 355 and consent of instructor. Experience in the design, conduct, and evaluation of psychological research. Advanced design and analysis techniques. Each student designs and conducts a research project and a laboratory exercise for psychology 355. Three hours each week. Offered on demand.

PSY 456. Physiological Psychology (3) Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of the anatomy of the nervous system and the roles which various neural structures play in the control of behavior. Three hours each week.

PSYL 456-51. Methods in Physiological Psychology (1) Prerequisite or corequisite: Psychology 456. A study of basic mammalian neuroanatomy and methodology of physiological psychology. Gross anatomy of the brain is taught by using sheep brains, slides and tape series. Includes demonstrations of brain research methods such as small animal surgery, brain stimulation and recording, and preparation of brain tissue for microscopic examination. Two laboratory hours each week.

PSY 457. Animal Behavior (3) Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of animal behavior including the traditional areas of ethology and comparative psychology. Primary emphasis is upon the similarities and differences in the behaviors of animals occupying various phylogenetic positions. Three hours each week.

PSYL 457-51. Animal Behavior Laboratory (1) Prerequisite or corequisite: Psychology 457. Laboratory exercises in animal behavior, including both field and traditional laboratory techniques. Three laboratory hours each week.

PSY 465. Community Psychology (3) Prerequisite: Psychology 105. Psychology 365 is suggested. A study of the contributions of psychology to the understanding of an individual's behavior as influenced by his community environment. A major consideration will be given to the problems associated with community mental health. Three hours each week.

PSY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PSY 495. Topical Seminar (1-3) Prerequisite: Psychology 105 and consent of instructor. Discussion of selected topics in psychology. May be repeated for additional credit.

PSY 499. Honors Work in Psychology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492; 294 and 494; see explanations on p. 78.

RECREATION

(See Health, Physical Education and Recreation)

SOCIAL SCIENCE

(Interdepartmental)

Participating disciplines: Anthropology, Earth Sciences, Political Science, Psychology, Sociology.

Requirements for a concentration in Social Science for the B.A. degree. Fifty-one hours in the Social Sciences, with a minimum of 30 hours in courses above 299. At least one course is required in each of the five participating disciplines, or at least one course required in four disciplines with an additional course in Economics. A minimum of 21 hours is required in the primary concentration area, with at least 15 of these hours in courses above 299. A minimum of 12 hours is required in each of two secondary concentration areas. At least six additional hours in Social Science are required.

Additional required courses include: a Research Methods course, the discipline of this course to be decided by the advisor and the student (3 hours); an appropriate Statistics course (3 hours); a two-course History sequence, or an appropriate pairing to be decided by the advisor and the student (6 hours). A Computer Science course is recommended, but not required. At least a 2.0 grade point average in the Social Science concentration must be attained.

A faculty member within the area of primary concentration shall serve as the student's advisor. Note: The primary concentration area may not serve as a discipline in a double major.

SOCIOLOGY AND ANTHROPOLOGY

Dr. Sabella, *Chairman.*

The Department of Sociology and Anthropology is comprised of Anthropology, Criminal Justice, Social Work and Sociology. The baccalaureate degree is offered in both Sociology and Anthropology.

Anthropology

Dr. Lerch, Dr. Loftfield, Dr. McCall, Dr. O'Meara, Dr. Sabella.

Requirements for a concentration in Anthropology for the B.A. degree: Anthropology 206, 207, 207-51, 210, 345, 450 and 21 additional hours comprised of two courses from each of the first three subfields listed below and one from the linguistics group. Physical: 320, 322, 324, 430. Archaeology: 307, 311, 312, 411. Cultural: 301, 302, 303, 304, 305, 306, 309, 317, 350. Linguistics: 208, Psychology 311, English 320, 322. Although no collateral courses are required, students contemplating a professional career in anthropology are urged to study a foreign language and acquire basic skills in computer science and statistics. Anthropology advisors may recommend additional courses in the sciences, humanities, or mathematics commensurate with individual career plans. A "C" grade point average over-all is required in departmental courses, and at least a "C" grade is mandatory in specific courses required in the department.

Anthropology Course Descriptions

(Department of Sociology and Anthropology)

ANT 105. Introduction to Anthropology (3) Introduction to the physical, archaeological, linguistic, and ethnological fields of anthropology; biological and cultural evolution of man. Three hours each week.

ANT 205. (Sociology 205) Human Societies (3) The comparative study of human society and culture, with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions—economy, marriage and kinship, politics and religion—which underlie and support a particular way of life. Comparisons are drawn among hunter-gatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamics of social process and cultural change are also introduced. Three hours each week.

ANT 206. Cultural Anthropology (3) A presentation of the content and historical development of cultural anthropology. Deals with the cultural relativism, ethnocentrism, institutional analysis and cultural integration and shifts in theoretical perspectives by comparing ethnographies of selected cultures. Three hours each week.

ANT 207. Archaeology (3) The concepts and aims of archaeology, its history as a scientific discipline and its present role in the social sciences. Attention to basic principles in field work and to recent advances. Three hours each week.

ANTL 207-51. Archaeological Laboratory (1) Corequisite or prerequisite: Archaeology 207. Course is designed to familiarize students with techniques of archaeological recover, preparation, preservation, and analysis of recovered archaeological materials. Laboratory work will parallel lecture, providing practical experience in techniques covered as part of lecture course. It is not necessary to take the lab in order to take lecture. Three hours each week.

ANT 208. Language and Culture (3) Human language, its characteristics and its relationship to other communication systems will be examined. The use of language to illuminate historical relationships and current sociocultural processes will be discussed, as well as ways in which one can investigate culture through cognitive structures elicited from speech. Three hours each week.

ANT 210. Physical Anthropology (3) Introduction to the study of human evolution. Consideration given to the fossil evidence for humans and putative human ancestors, early development of culture, and dynamics of cultural and biological changes in recent and living human populations. Three hours each week.

ANT 230. (Sociology 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are reviewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival. Three hours each week.

ANT 250. Anthropology Through Film (3) A series of anthropological (ethnographic) films exploring life and values, especially in nonwestern societies, provide the primary course material. The films are used as a surrogate field experience to introduce a number of major anthropological topics that receive further emphasis in assigned readings and class discussion. Ethnocentrism, adaptation, warfare and acculturation among other themes are explored in this course. Three hours each week.

ANT 301. Shamanism, Witchcraft, and Cults (3) Prerequisite: Anthropology 105 or consent of instructor. A study of the religious institutions of traditional band, tribal and peasant societies. Topics cover psychological stress, social control, and ritual healing. The cult within modern western society will be compared with those in traditional preindustrial society. Three hours each week.

ANT 302. Traditional Societies in the Modern World (3) Prerequisite: Anthropology 105 or consent of instructor. An assessment of the impact of Western industrial societies on primitive and peasant peoples of the world. Themes of acculturation, underdevelopment, modernization, economic dependency and rural to urban migration will be treated from a cross-cultural perspective. Three hours each week.

ANT 303. Women, Work and Culture (3) Prerequisite: Anthropology 105 or Sociology 105 or consent of instructor. A study of women's work in traditional societies (primarily Third World). The allocation of work to women is seen as affected by such factors as socialization and gender definition, economic exchange patterns, division of labor, religious beliefs, political structure, and the impact of modernization and development policies on work and family roles of Third World women. Three hours each week.

ANT 304. Indians of South America (3) Prerequisite: Consent of instructor. This course will acquaint the student with human populations and their adaptations to the South American continent. Approximately equal emphasis is given to lowland tribes and Andean cultures. Both of these will be studied from an historic perspective spanning the entire period of man's presence on the continent. Three hours each week.

ANT 305. Indians of North America (3) Prerequisite: Consent of instructor. Surveys of North American Indian tribes; subsistence patterns reflected through cultural adaptation to various ecotypes; archaeological analysis of the interplay of Asian and Mexican influences; restructuring of North American Indian cultures as a consequence of European influence. Three hours each week.

ANT 306. Principles of Kinship and Social Organization (3) Prerequisite: Anthropology 105. This course deals with the structures and functions of kinship in a variety of cultures as a background for the study of complex cultural patterns. Three hours each week.

ANT 307. New World Archaeology (3) Prerequisite: Anthropology 105 or 207 or consent of instructor. The entry of man into North America and South America will be examined using archaeological data. Other topics will include the post-Pleistocene expansion of big game hunters, woodland hunter-gatherers, and the development of agricultural societies. Diffusion versus independent invention will be considered. Three hours each week.

ANT 308. Marine Archaeology: Methods and Theory (3) Prerequisite: Anthropology 207, Diver's Certificate, 310 corequisite. This course is designed to introduce the archaeologist to the field of underwater archaeology. Both classroom and field sessions will be required. Theory will be derived from the existing literature. The role of the archaeologist as an underwater scientist will be emphasized. Three hours each week.

ANT 309. Environmental Anthropology (3) Prerequisite: Anthropology 105 or 206 or 207 or consent of instructor. A study of cultural adaptations as responses of human populations to varied environments; this course will focus upon cultural vs. biological adaptation from the archaeological past to the ethnographic present.

ANT 310. Marine Archaeology: Field Practicum (3-6) Prerequisite: Anthropology 207, Diver's Certificate, 308 corequisite. Practical field methods will be taught utilizing actual underwater prehistoric or historic sties. Survey techniques, excavation, record-keeping, and preservation will be stressed and adapted to a submarine environment.

ANT 311. Field Methods in Archaeology (3-6) Prerequisite: Anthropology 207. Practical field methods of land-site archaeology will be taught through the excavation of local archaeological sites. Scientific excavation, sampling, and preservation techniques will be presented as the basic tools of the archaeologist.

ANT 312. Historical Archaeology (3) Prerequisite: Anthropology 105 or consent of instructor. Substantive investigation of the special excavation and analysis procedures, subject matter, and goals of archaeology as applied to the historic past of North America. Special emphasis will be placed upon historic archaeological sites in the local (Southeastern North Carolina) region. Lecture, laboratory and field work involved. Three hours each week.

ANT 317. The Human Condition in Latin America (3) Prerequisite: Anthropology 105 or consent of instructor. This course applies the anthropological perspective to the study of the complex national cultures of Latin America. Topics covered focus on the problem of relating peasant communities, small towns, urban slums, middle class neighborhoods, and clubs and social networks to regional and national institutions. Three hours each week.

ANT 320. Human Origins (3) Prerequisite: Anthropology/Earth Sciences 210 or consent of instructor. Classification and history of human evolution deduced from the fossil record and molecular data. Discussion of Tertiary hominoids and emergence of humans with emphasis on Australopithecines and later Pleistocene hominoids. Three hours each week.

ANT 322. Primate Biology and Behavior (3) Prerequisite: Anthropology 210 or consent of instructor. Ecology, social behavior, and functional morphology and classification of living primates (prosimians, monkeys, and apes); their evolutionary history and development. Three hours each week.

ANT 324. Human Biological Variation (3) Prerequisite: Anthropology 210 or consent of instructor. Nature and extent of heritable differences among human populations in evolutionary perspective. Consideration of effects of environmental factors on genic expression. Three hours each week.

ANT 345. Method and Practice in Cultural Anthropology (3) Prerequisite: Anthropology 105 or consent of instructor. A study of ethnographic field methods through selected readings demonstrating field techniques of major figures in cultural anthropology, both past and present. Practice involves exercises in participant-observation, indepth interviewing, survey research, photographic analysis, and tape recordings of cultural events. Three hours each week.

ANT 350. Maritime Anthropology (3) Prerequisite: Anthropology 105 or consent of instructor. A study of fishermen, navigators, boatbuilders, and seamen. This course traces the origins and development of human maritime adaptations in selected regions of the world. Themes include primitive and traditional fisheries, technological innovation, fisheries management and law of the sea. Three hours each week.

ANT 387. (Art 387) Museum Studies (3) Prerequisite: Permission of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition, and education. Three hours each week

ANTL 387-51. (Art 387-51) Museum Studies Practicum (1) Prerequisite: Permission of instructor. Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ANT 411. Advanced Field Training in Archaeology (3) Prerequisite: Anthropology 105, 207, 311, and consent of instructor. Supervisory training for field archaeologists. Students direct specific aspects of archaeological excavation including research design, data recover, daily site management, and field analysis. For the advanced archaeology student only. Three hours each week.

ANT 430. (Biology 430) Evolutionary Biology (3) Prerequisite: Biology 335 (Genetics). Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature. Three hours each week.

ANT 450. History of Anthropological Theory (3) Prerequisite: Six hours of anthropology above the introductory level or consent of instructor. This course traces the development of anthropological theory through the research and writings of key figures in the field. Attention is directed toward social and intellectual contexts out of which anthropological theories emerge. Three hours each week.

ANT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

ANT 495. Topical Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in anthropology.

ANT 499. Honors Work in Anthropology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492; 294 and 494, see explanations on p.78.

Sociology

Dr. Blanks, Dr. Dixon, Dr. Faulkner, Dr. Huer, Dr. LaGrange, Dr. Levy, Dr. Maxwell, Dr. McNamee, Dr. Miller, Dr. Polgar, Dr. Scalf, Dr. Shevach, Dr. Supancic, Dr. Willis.

Requirements for a concentration in Sociology for the B.A. degree:
Sociology 105, 306, 360, 406, 460, 490 and 18 additional hours, 12 of which must be at the 300-400 level. Statistics 205 and Sociology 306-51 are required. Collaterals will be decided in consultation with each advisee. Within Sociology some areas of emphasis are deviance and social control, demography and environmental studies, urban and community studies, family and leisure studies, organizations and bureaucracy, and medical and gerontology. A "C" grade point average overall is required on departmental courses, and at least a "C" grade is mandatory on specific courses required in the department.

Criminal Justice and Social Work are areas of specialization in the department. The department offers some alternatives to the above-listed requirements for students specializing in Criminal Justice or Social Work. The alternative requirements are available in the department.

Criminal Justice Course Descriptions

(Department of Sociology and Anthropology)

CRJ 201. Introduction to Criminal Justice (3) Study of the criminal justice system as a social process. Analysis of structure and function of law enforcement, courts, corrections, and probation and parole. Three hours each week

CRJ 240. Issues in Criminal Justice (3) Examination of critical issues in contemporary criminal justice systems, with emphasis on alternative approaches. Three hours each week.

CRJ 306. (Social Work 306) Evaluative Methods for Service Agencies (3) Prerequisite: Statistics 205 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

CRJ 340. Police in Society (3) Prerequisite: Criminal Justice 201. Analysis of role and function of police in the United States. Special attention to the social arena in which the police operate and the effect of societal changes on police systems. Three hours each week.

CRJ 350. Criminal Courts and the American Justice System (3) Prerequisite: Criminal Justice 201. Analyzes the dynamics of American criminal courts. Examines relationships among the courthouse work-group (police, prosecutor, defense attorney, judge) and discusses the roles assumed by witnesses, victims, defendants and jurors. Three hours each week.

CRJ 395. Corrections (3) Prerequisite: Criminal Justice 201. Studies societal patterns of punishment, alternatives to incarceration, consequences of imprisonment and correctional strategies of rehabilitation and deterrence. Three hours each week.

CRJ 405. Criminal Justice Administration (3) Prerequisite: Criminal Justice 201, 240, and consent of instructor. A concentration on management techniques for each administrative segment of criminal justice: the police, the courts, prosecution/defense, probation, parole and corrections. It will offer alternative models, based on a system approach to function and role, that relate each criminal justice sub-system administratively to the other. Three hours each week.

CRJ 410. World Criminal Justice Systems (3) Prerequisite: Criminal Justice 201 plus six additional hours in Criminal Justice. Comparative study of criminal justice systems throughout the world. Attention to historical, structural, political, legal and philosophical similarities and differences. Analysis includes criminal justice systems of England, France, Sweden, Japan and the Soviet Union. A topical paper is required. Class limited to 20 students. Three hours each week.

CRJ 450. Criminal Justice Theory (3) Prerequisite: Criminal Justice 201 plus six additional hours in Criminal Justice. An analysis of the development of theories of justice and crime control. The theories and principles upon which the American system of justice is based are covered. Three hours each week.

CRJ 490. Criminal Justice Practicum (3-6) Prerequisite: Senior standing in criminal justice. Field placement in various criminal justice agencies. Integrates practical experience with classroom knowledge. Weekly summaries and a final report are among course requirements.

CRJ 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

CRJ 495. Topical Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Consideration of special topics not dealt with in the regular courses.

For 292 and 492; 294 and 494, see explanations on p. 78.

Social Work Course Descriptions

(Department of Sociology and Anthropology)

SWK 235. Introduction to Social Work (3) History, methods, and practice in professional social work in the United States. Three hours each week.

SWK 245. Human Behavior in the Social Environment (3) Prerequisite: Social Work 235. A survey of the human behavior from a social systems standpoint. Emphasis on concepts and theories relevant to social work intervention with individuals, families, groups, organizations, and communities. A theoretical foundation for specialized areas of casework, group work, and community organization is provided. Three hours each week.

SWK 301. Social Casework Methods (3) Prerequisite: Social Work 235. An introduction to the basic principles, methods and techniques which form the basis for social work practice with special emphasis on the professional use of self and utilization of systematic processes of problem solving in the delivery of social and rehabilitation

services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced. Three hours each week.

SWK 302. Social Group Work Methods (3) Prerequisite: Social Work 301. This course provides an opportunity to explore more fully differential concepts and principles, advocacy role, problem-solving skills, strategies and techniques in providing discrete services to individuals, groups, and communities. Emphasis is on roles, communicative patterns, and types of systems encountered by the social worker. It is also concerned with the broadening and deepening of principles underlying autonomous social work practice, decision techniques, goal formulation and mobilizing competence for action. Observation and participation in a selected human service agency is required. Three hours each week.

SWK 306. (Criminal Justice 306) Evaluative Methods for Service Agencies (3) Prerequisite: Statistics 205 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

SWK 310. Programs and Policies for Older Americans (3) Prerequisite: Social Work 235. Health, social, and income needs of an aging population will be related to current laws, programs, administrative networks, and politics. Current issues in the development of programs such as age-integration, community based services, advocacy and protection will be covered. Three hours each week.

SWK 318. Social Work and Health Care Delivery (3) Prerequisite: Social Work 235. An examination of the rationale, issues, problems and practices related to the implementation of client-centered health care. New programs and proposals for the delivery of health services will be reviewed systematically with reference to the implications for social work practice.

SWK 336. Suicidology and Crisis Intervention (3) Prerequisite: Social Work 235. An examination of the present range of theoretical formulations of crisis theory will be made and related to the variety of ways it is being applied in many fields of practice and in a number of commonly encountered stressful situations. Many points of view and approaches, reflecting diverse efforts at extending the knowledge and practice base of crisis conceptualizations are studied. Emphasis is placed on observing, formulating, defining, and measuring the threats, tasks and opportunities associated with crisis behavior in individuals and families. The use of preventative techniques that are appropriate for individuals, groups and communities are explored. A common theoretical frame of reference will be developed to provide systematic and in-depth response, the range of normally developing life crisis, as well as abnormal and accidental crises. Three hours each week.

SWK 396. Community Organization and Social Practice (3) Prerequisite: Social Work 235. The course analyzes a variety of forms of community organization practice, focusing on definition of goals, values, roles and skills required for professional practice. Community organization is viewed as a process of bringing about desirable changes in community life. Community needs and resources available to meet these needs are studied. Three hours each week.

SWK 435. **Social Welfare Policies (3)** Prerequisite: Social Work 235, 301, and 302. A problematic approach to situations that affect policies, issues, programs and services in social work and rehabilitation services. An attempt to aid the student in developing an analytical and critical understanding as he explores the motivation and methods by which social work and rehabilitation services, policies and programs are being developed by our society and other countries. Three hours each week.

SWK 490. **Social Work Practicum (3-6)** Prerequisite: Consent of instructor. A field experience in selected social agencies designed to permit student application and integration of cognitive and affectual learning with a formalized service system. Learning experiences and content are designed to gain and demonstrate beginning knowledge, attitudes and skills which are consistent with the concepts of social practice. The student will participate in a two hour weekly seminar.

SWKL 490-51. **Social Work Laboratory (1)** Prerequisite: Social Work 490 corequisite. Integration of practicum and theory through the discussion of selected topics related to social work practices. To be taken concurrently with Social Work 490. Two hours each week.

SWK 491. **Directed Individual Study (1-3)** Prerequisite: Junior or senior standing and consent of instructor.

SWK 495. **Topical Seminar (1-3)** Prerequisite: Sociology 105, Social Work 235 and consent of instructor. A consideration of special topics not dealt with in regular courses.

or 292 and 492; 294 and 494, see explanations on p. 78.

Sociology Course Descriptions

(Department of Sociology and Anthropology)

OC 105. **Introduction to Sociology (3)** Science of human society emphasizing physical basis of society, culture, collective behavior, population, and social institutions. Analytical approach stressed. Three hours each week.

OC 110. **Sociology in Contemporary Life (3)** An introductory level course designed to enable students to think about and interpret the social world and events around them. Emphasis will be placed on discovering your social self, understanding social interaction, and interpreting the relationship of the individual with modern industrial society. Three hours each week.

OC 200. **Sociology of Sport (3)** A sociological examination of the rise of sport in contemporary society. Topics such as the social organization of sports, women and sports, sports and violence, inter-scholastic sports and achievement behavior, discrimination and sports, and the future of sport are covered. Three hours each week.

OC 205. **(Anthropology 205) Human Societies (3)** The comparative study of human society and culture with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions—economy, marriage and kinship, politics and religion—which underlie and support a particular way

of life. Comparisons are drawn among hunter-gatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamic of social process and cultural change are also introduced. Three hours each week.

SOC 215. Modern Social Problems (3) Social controls and the sociology of revolutionary change. Problems related to race, family, crime, delinquency, and social disorganization. Three hours each week.

SOC 220. Sociology of Birth and Death (3) The examination of the sociological dimensions of "human entry and exit." The social organizational and cultural dimensions of birth and death will be considered in terms of rites of passage, bureaucratizations, social movements, cultural differences, and historical and contemporary contexts. Three hours each week.

SOC 230. (Anthropology 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are viewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival. Three hours each week.

SOC 305. Population (3) Prerequisite: Sociology 105. A study of the changes in size, composition, distribution of population and the dynamics underlying them. Three hours each week.

SOC 306. Methods of Social Research (3) Prerequisite: Sociology 105, Statistics 205. Introduction to the logic and methods of sociological research. Topics include the logic of social scientific inquiry; the relationship between theory and research; problem formulation; research design; conceptualization and measurement; operationalization; sampling; modes of observation; index and scale construction; introduction to analysis and interpretation of quantitative data; and ethics and politics of social research. Three hours each week.

SOCL 306-51. Methods of Social Research Laboratory (1) Prerequisite: Sociology 105 and Statistics 205. Basic instruction in SPSS computer programming techniques and applications to social scientific data management and analysis. Two hours each week.

SOC 311. (Political Science 311) Techniques of Public Opinion Polling (3) Prerequisite: Political Science 211 or consent of instructor. Basic skills in all phases of public opinion polling: issue focus; questionnaire construction; sample selection; interview techniques; elementary data analysis; interpretation and presentation of results. Opinion polls of current political and social issues conducted as class projects to develop these skills. Three hours each week.

SOC 315. Urban Sociology (3) Prerequisite: Sociology 105. Analysis of the history and development, social organization, and problems of the city. Three hours each week.

SOC 316. Human Ecology (3) Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities. Three hours each week.

SOC 325. American Minority Relations (3) Prerequisite: Sociology 105. Analysis of the ascriptive bases of inequality in American society: race, ethnicity, religion and sex. Topics include sociocultural causes and consequences of prejudice and discrimination; and Europe immigration, ethnicity and assimilation. Three hours each week.

SOC 326. Collective Behavior and Social Movements (3) Prerequisite: Sociology 105. Analysis of social behavior that breaks from existing patterns and expectations, such as riots, crowds, revolution, and social movements. Three hours each week.

SOC 333. Sociology of Mental Illness (3) Prerequisite: Sociology 105. A sociological examination of the development and distribution of mental health and illness, particularly in the United States. Drawing from the works of relevant writers in the field, such as Scheff and Goffman, the course emphasizes the societal reaction approach to mental illness. Topics to be included are mental illness as deviance, the sociogenesis of mental disorder, and social stratification and mental illness. Three hours each week.

SOC 335. The Sociology of Deviant Behavior (3) Prerequisite: Sociology 105. The analysis of certain behavior in terms of deviations from norms; the application of sociological and psychological concepts and theory to deviant behavior, and the critical evaluation of non-sociological research and theories. Three hours each week.

SOC 336. Sociology of Aging (3) Prerequisite: Sociology 105. Introduction to sociological theories and methods used to explain the aging process. Topics include age stratification, adjustment to life events, housing patterns, health, and social policy. Three hours each week.

SOC 337. Medical Sociology (3) Prerequisite: Sociology 105. A sociocultural analysis of the general area of health and illness. Emphasis is given to understanding the distribution of health and illness in the United States and its impact on the patient status. The course includes a discussion of the organization and use of health care services from a sociological perspective. Three hours each week.

SOC 340. Organizations in Modern Society (3) Prerequisite: Sociology 105. An introduction to the dynamics of social life in large-scale organizations. Topics include organizational social psychology, organizational structure and process, and organization-community relations. Three hours each week.

SOC 344. The Sociology of Politics (3) Prerequisite: Sociology 105 or Political Science 101. Examines political institutions and political behavior from a sociological perspective. Topics include the social and economic origins of political behavior; the organization and distribution of political power and its effects on society, politics and social change. Three hours each week.

SOC 345. Sociology of the Family (3) Prerequisite: Sociology 105. Origin and development of the family as a social institution from an historical and comparative approach; analysis of forms and functions of the family; socialization, mate selection, procreation. Three hours each week.

SOC 346. Sociology of Religion (3) Prerequisite: Sociology 105. An analysis of the structure, function and process of religion, emphasizing the reciprocal relation of religion

and cultural and religious differentiation and institutionalization. Three hours each week.

SOC 347. Sociology of Education (3) Prerequisite: Sociology 105. An examination of the socio-cultural factors operating at various levels of the educational process, from classroom to school system to community, in light of the changing roles of the child and education in a complex industrial society. Three hours each week.

SOC 348. Sociology of Leisure and the Arts (3) Prerequisite: Sociology 105. This course surveys existing theory and research with respect to the concept of leisure. Specific attention is devoted to sociological analyses of trends, differentials, and time expenditures which population categories exhibit in recreational, sporting, and arts activities. Three hours each week.

SOC 350. Sex Roles in Society (3) Prerequisite: Sociology 105. The differentiation of both ascribed and achieved roles in modern society based on the variable of sex of the individual, conditions which serve to maintain or to weaken the normative patterns, and consideration of some of the consequences of differentiation. The effects of sex-role socialization on political, occupational, and educational behavior, with emphasis placed on stability and change. Three hours each week.

SOC 355. Criminology (3) Prerequisite: Sociology 105. The nature, variation and causes of crime are studied as aspects of the American culture. Three hours each week.

SOC 360. Foundations of Social Thought (3) Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. A review of the significant trends of development in sociological theory with emphasis on the relationship of theory to research. Three hours each week.

SOC 365. Social Psychology (3) Prerequisite: Sociology 105. A sociological analysis of human social interaction. Topics include symbolic interaction, socialization, interpersonal relations. Focus is on social and cultural influences on individual and group behavior. Three hours each week.

SOC 366. Social Change (3) Prerequisite: Sociology 105. The study of social and cultural change in community and society with emphasis upon the rate and degree of change, direction of change, mechanism of change, and planning of change. Three hours each week.

SOC 375. Juvenile Delinquency (3) Prerequisite: Sociology 105. The analysis and description of the problem of juvenile delinquency as it exists in a changing contemporary society. Three hours each week.

SOC 385. The Community (3) Prerequisite: Sociology 105. Structure, process and change in modern communities. Topics include analysis of the concept of community; the community as a social system; major community functions; relationships between the community and larger society; community stratification, power structure and organization. Three hours each week.

SOC 386. Sociology of Work and Occupations (3) Prerequisite: Sociology 105 and three additional hours in Sociology or Economics. An analysis of the place of work in society. This course examines occupational structures as the primary link between persons and the larger society. Topics to be included are the growth and development of occupational structure, occupations and technological change, occupations and organizational complexity, and other system features which influence or are influenced by the occupational structure. Three hours each week.

SOC 390. Social Structures (3) Prerequisite: Sociology 105. The course examines the concept of social structure as differentiated social positions and units and their interrelations, including bases of differentiation and integration. Examines patterns of a variety of social structures—the overall structure and patterned development of society, the structure of culture, the structure of deviance, the structure of interaction—considering consequences and interrelations. Three hours each week.

SOC 406. Advanced Social Research Methods (3) Prerequisite: Sociology 306, 306-51. A study of the social survey research process: problem formulation, literature review, instrument development, sample determination, data collection, statistical analysis, and report writing. Requirements include individual research proposals and a class research project. Three hours each week.

SOC 415. Power and Privilege (3) Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. Examination of social stratification as the system of distribution of privilege, power and prestige in modern and traditional societies. Discussion of major theories and theorists of stratification; the structure and process of systems of social inequality; the causes, correlates and consequences of socially structured inequality. Three hours each week.

SOC 449. Sociology of Law (3) Prerequisite: Sociology 105 and junior/senior standing. An analysis of the role of law in society. Special emphasis will be given to the relationship between law and social organization and the relation of sociocultural changes to substantive and procedural aspects of law. The concept of justice will also be analyzed. Law will be viewed as a collectivistic-individualistic process and as a reflection of sociocultural values. Three hours each week.

SOC 460. Contemporary Sociological Thought (3) Prerequisite: Sociology 360. Coverage of the major contemporary theoretical approaches in sociology is provided. The development of structural-functionalism, positivism, Marxian thought, interactionism, ethnomethodology, and structuralism are analyzed in terms of the structure and purposes of theory. Three hours each week.

SOC 490. Senior Project (3-6) Prerequisite: Sociology 105, 306, 406, and senior status. A personal study of a segment of the community will be undertaken by each major. There will be an analytical paper written after actual data has been acquired preferably through a personal confrontation within an institutional setting.

SOC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

SOC 495. Topical Seminar (1-3) Prerequisite: Sociology 105 and consent of instructor. Consideration of special topics not regularly dealt with in regular courses.

SOC 499. Honors Work in Sociology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492; 294 and 494, see explanations on p. 78.

SPANISH

(See Foreign Languages and Literatures)

SPEECH COMMUNICATION

(See Creative Arts)

CAMERON SCHOOL OF BUSINESS ADMINISTRATION

Norman R. Kaylor, Dean
Denis G. Carter, Associate Dean

The Cameron School of Business Administration of The University of North Carolina at Wilmington has planned its courses and curricula to be of use to the graduate in a position of esponsibility as an owner of an independent business enterprise or as an employee at the decision making level in private business or in government and other non-profit organizations.

The primary function of the Cameron School of Business Administration is to teach students he basic body of knowledge they will need to enter a career in business or government and o promote the development of proficiency in practical application. The academic programs provide graduates with career opportunities in manufacturing and service organizations, marketing and sales, government, accounting firms, banks and other financial institutions. The graduate is also prepared to enter law school and graduate programs in public administration as well as for graduate study in accountancy, business administration, and economics. As complementary functions, through individual faculty efforts and the Center for Business and Economics Services, the Cameron School of Business Administration undertakes research in appropriate areas and provides related services to business and governmental units.

DEGREE PROGRAMS AND REQUIREMENTS

The B.S. degree is offered in five areas of concentration: Accountancy, Business Management, Finance, Marketing, and Economics. The B.A. degree with a concentration in Economics is offered for those students who want to study Economics in the liberal arts tradition.

Requirements for admission to the Cameron School of Business Administration are listed on page 74. Each applicant must have completed a minimum of 44 semester hours with a cumulative grade point average of 2.0 or better, with the following courses completed at the time of application:

ENG 101-102, MAT 111 or 115, *ACG 201, ECN 221.

During the semester of application each applicant must be enrolled in or have completed:

MAT 151 or 161, ECN 222, *PDS 217, *ACG 203 or 204.

*Students seeking a concentration in Accountancy should enroll in ACG 204; all other B.S. degree candidates should enroll in ACG 203. Students enrolling in the B.A. program in Economics are not required to complete ACG 201, 203 or 204 and may substitute STT 205 or 215 for PDS 217.

Students may qualify for the B.S. or B.A. degree by:

(1) successful completion of requirements as stated under Academic Regulations on page 67;
(2) successful completion of the courses designated for the degree program; and
(3) attaining a minimum grade point average of 2.0 on all courses attempted in the Cameron School of Business Administration.
(4) Students seeking the B.S. degree with a concentration in Accountancy must also earn a minimum grade point average of 2.0 on all accounting courses attempted in the Cameron School of Business Administration.

(5) The B.A. degree requires a minimum grade point average of 2.0 on all Economics courses attempted.

Electives are to be chosen by the student after consulting with the faculty advisor, with no more than 9 semester hours of free electives selected from courses in the Cameron School of Business Administration.

ACCOUNTANCY AND BUSINESS LAW

Mr. Appleton, Chairman. Dr. Baker, Mr. Davenport, Mr. Eaglin, Mr. Earney, Dr. Elikai, Mr. Herron, Dr. Kaylor, Dr. Marts, Mr. Roscher, Mrs. Sawyer, Mr. Zeko.

The B.S. degree with a concentration in Accountancy provides the student with the analytical foundation of the discipline of Accountancy. Included are the special tools and techniques of planning and control using financial and managerial accounting, income taxes, cost analysis, and systems.

Students establish qualifications for careers as professional certified public accountants, and in industrial, governmental, and other positions requiring managerial and analytical skills. The accounting concentration provides an excellent background for graduate and other professional education.

The elements of planning, administration, and control covered in the accounting courses are essential to all areas of business. Many of the courses offered benefit students concentrating in other fields by furnishing a comprehensive background of business procedures and financial relationships. Likewise, students concentrating in Accountancy find it advantageous to elect as many courses as possible in other areas of business, especially the quantitative fields.

A graduate of the Cameron School of Business Administration who has completed a concentration in Accountancy is permitted by the State Board of Accountancy of North Carolina to write the CPA examination. The student is also qualified by the Institute of Management Accounting to write the CMA examination.

The courses in business law and legal environment provide the study of how the legal environment influences and is influenced by changing social and ethical values. Courses include study of administrative law and the Uniform Commercial Code as well as the organization and role of business enterprises in society and their relationships in government and society.

Requirements for a concentration in Accountancy for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201, ECN 221-22, 324, BLA 361, PDS 217, 313, 314, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses: PDS 317, ACG 204-303-304, 305, 404, 407, and two courses from the following: ACG 307, 309, 405, and 406. Students planning to write the CPA examination are advised to elect BLA 461 and additional accounting electives including ACG 309, 402, and 405.

Accountancy Course Descriptions

(Department of Accountancy and Business Law)

ACG 201. Financial Accounting (4) Prerequisite: MAT 111. An introduction to the basic framework of accounting for both students concentrating in accountancy and other disciplines. Includes preparation of financial records, working papers, and financial statements, and analysis of the major financial statements with emphasis on the underlying accounting concepts and constraints.

ACG 203. Managerial Accounting (3) Prerequisite: ACG 201. An introduction to the concepts and techniques used by management to analyze and interpret accounting data in the organization. Not open to students seeking a concentration in accountancy.

ACG 204-303-304. Intermediate Accounting I, II, and III (3-3-3) Prerequisite: ACG 201. Analysis of traditional financial accounting topics and theory. Examines recent developments in accounting measurement and promulgations of the leading professional accounting organizations. ACG 204 emphasizes development of accounting standards and theory, financial statements, current assets and current liabilities. ACG 303 emphasizes plant assets, long-term investments, long-term liabilities, stockholders equity, revenue recognition and income tax allocation. ACG 304 emphasizes pensions and leases, cash flow statements, accounting for changing price levels, financial statement analysis, foreign currency transactions, corporate liquidations and reorganizations, and segment and interim reporting.

ACG 305. Cost Accounting (3) Prerequisite: ACG 201. Costs for planning and control, including the role of the accountant in the organization; cost behavior and volume-profit relationships; responsibility accounting; standard costs; flexible budgets; cost structures for control and motivation; and relevant costs for nonroutine decisions.

ACG 307. Administrative Accounting and Control (3) Prerequisite: ACG 203 or 305. The controllership function and analytical methods to serve the information needs of decision making and control; advanced topics in cost accounting, forecasting, budget design and preparation, and responsibility accounting.

ACG 309. Accounting for Business Combinations (3) Prerequisite: ACG 303. A study of accounting problems in parent-subsidiary interrelationships, mergers and consolidations, partnerships, and non-profit accounting. Emphasis on consolidated financial statements.

ACG 402. Specialized Accounting Problems (3) Prerequisite: ACG 304, 305, and 309. Advanced study of accounting practice and theory with emphasis on preparation for the CPA examination. Includes study of official pronouncements of the American Institute of Certified Public Accountants and the Financial Accounting Standards Board.

ACG 404. Federal Income Taxes I (3) Prerequisite: ACG 201. Study of federal income taxation of individuals. Includes business expenses and revenues, depreciation, and property transactions and the history and development of taxation.

ACG 405. Federal Income Taxes II (3) Prerequisite: ACG 404. The study of corporate, partnership, estate and trust taxation. Emphasis is on corporation and partnership organization, operations, distributions, liquidation and reorganization.

ACG 406. Non-Profit Organization Accounting (3) Prerequisite: ACG 303. Accounting for not-for-profit organizations including governments, colleges and universities, hos-

pitals, charities, and other not-for-profit organizations. Emphasis is on objectives and preparation of financial statements, the use of managerial reports, and budgetary data.

ACG 407. Auditing (3) Prerequisite: ACG 303. Objectives, standards and procedures involved in examining and reporting on financial statements of business organizations by independent auditors in light of ethical and legal obligations.

ACG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ACG 498. Accounting Internship (3) Prerequisite: Senior status and consent of faculty supervisor. Involves the application of professional accounting skills required in the academic environment to the role of the practicing professional accountant. The participant will receive practical training and experience under the guidance of the accounting staff of a local business or government organization and a faculty supervisor. Open only to students concentrating in accountancy. Available internships will be filled on a competitive basis.

ACG 499. Honors Work in Accounting (2-3) Prerequisite: Senior standing. Independent work for honors students.

Business Law Course Descriptions

(Department of Accountancy and Business Law)

BLA 361. Legal Environment of Business (3) Prerequisite: Junior or senior standing. Study of the organization and role of business enterprises in society and their relationships in government. Examines how the legal environment is influenced by changing social and ethical values. Topics include agency, antitrust, forms of business organization, environmental regulation, equal opportunity, labor law, product liability, and property rights.

BLA 461. Commercial Law (3) Prerequisite: Junior or senior standing. Study of the commercial legal environment in which business enterprises operate. Examines the law of contracts, sales and warranties, security interests, commercial paper, and debtor and creditor rights.

BLA 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

BLA 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

ECONOMICS AND FINANCE

Dr. Hill, Chairman. Dr. S. Bojanic, Dr. Carter, Dr. Comeskey, Dr. Copley, Dr. Farrell, Dr. W. Hall, Dr. Harriss, Dr. Howell, Dr. Lawson, Mr. McDowell, Dr. Morgan, Dr. Wadman, Dr. Walsh.

The Economics and Finance programs prepare students for careers which emphasize an understanding of the operation of the economy and the proper choice of policies by both

government and business enterprises. The Economics concentrations represent a more general area of study, preparing the student to enter government service, industry, or to pursue a graduate program in economics, business, public administration or other social science disciplines.

The B.S. degree with a concentration in Economics is designed to provide orientation of the individual and the firm in economic society. The student is required to supplement the study of economics with a variety of business and accounting courses.

The B.S. degree with a concentration in Finance consists of three separate but related areas--business finance, investments, and financial institutions. The Finance curriculum prepares students for graduate study and for careers in corporate financial management, the investments and securities business, and the management of banking and nonbank financial institutions. The generalized applicability of finance and the basic tools of financial analysis are emphasized in the courses.

The B.A. degree with a concentration in Economics is designed for the student who wants to study Economics in the liberal arts tradition. The study of a wide variety of economics courses is supplemented by a study of history and the social sciences. Both degree programs develop an understanding of contemporary economic problems and institutions and provide a study of economic issues both in an historical setting and under conditions of change.

Requirements for a concentration in Economics for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201, ECN 221-222, 324, BLA 361, PDS 217, 313, 314, MGT 350 455, FIN 335, MKT 340.

(b) Concentration Courses:

(1) Students planning study in general economics must complete, in addition to the courses named in (a) above, ACG 203, ECN 320, 321, 322, 328, 495, and two courses selected from the following, one of which must be numbered above 399: ECN 323, 325, 326, 329, 421, 422, 426, 427, and 428

(2) Students planning study in Economics with an emphasis on Finance must complete, in addition to the courses named in (a) above, ACG 203, ECN 320, 321, 322, 495, FIN 330, 436, 437.

Requirements for a concentration in Finance for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201, ECN 221-222, 324, BLA 361, PDS 217, 313, 314, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses: In addition to the courses named in (a) above, students must complete ACG 203, PDS 317, FIN 330, 336, 436, 430 or 437, and two courses selected from the following: FIN 331, 332, 430, 431, 437, 438, 495.

Requirements for a concentration in Economics for the B.A. degree:

(a) Core Requirements: In addition to basic studies requirements the following courses must be completed: MAT 111-151, PDS 217 or STT 205 or 215, ECN 221-222, 321, 322, 324, 326 or 421, 328, 495, and six additional hours in Economics courses numbered above 299.

(b) In addition to the courses named in (a) above, the student must complete 21 semester hours from at least two of the following: Anthropology, Geography, History, Political Science, Psychology, Sociology. A minimum of six hours must be taken in at least two areas, and at least nine hours must be courses numbered above 299.

Economics Course Descriptions

(Department of Economics and Finance)

ECN 125. Survey of Economics (3) An introduction to economics principles for non-business and non-economics majors. Current analysis rather than theoretical analysis is utilized to present and show the relevance of economics principles. (Not open to students who have earned credit for either ECN 221 or ECN 222.)

ECN 221. Principles of Economics--Micro (3) Prerequisite: MAT 111. Analysis of decision-making processes and economic equilibrium for the individual firm and consumer at an introductory level.

ECN 222. Principles of Economics--Macro (3) Prerequisite: ECN 221. Aggregate economic analysis examining the effects of fiscal and monetary policy upon aggregate employment, income and prices at an introductory level.

ECN 320. Managerial Economics (3) Prerequisite: PDS 314. The theory and application of economics principles and methodology to the decision making process under conditions of uncertainty. Includes the following topics: demand theory and analysis; cost and production conditions facing the firm; forecasting; resource allocation and management of inputs; pricing, profit strategies, and market structure; and finance and investment decision making for the firm.

ECN 321. Intermediate Price Theory (3) Prerequisite: MAT 151 and ECN 222. A theoretical analysis of individual consumer and firm behavior and general equilibrium.

ECN 322. National Income Analysis (3) Prerequisite: ECN 321. A theoretical analysis of the determination of aggregate income, aggregate employment, and the average price level and role of monetary and fiscal policy in the determination of such.

ECN 323. Business, Government and Society (3) Prerequisite: ECN 222. A broad study of the role of business enterprises in society and their relationships with government. Examines influence on decision making of changing social values, changing political, legal, and regulatory environments.

ECN 324. Money and Capital Markets (3) Prerequisite: ECN 222. An introduction to the financial and economic environment with which a firm must operate. Analysis of the sources and the cost and availability of funds in a domestic and international setting; analysis of international monetary flows; financial decision making in an integrated world economy.

ECN 325. (EVS 325) Environmental Economics (3) Prerequisite: ECN 125 or 221. Application of economics concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives.

ECN 326. Comparative Economic Systems (3) Prerequisite: ECN 125 or 222. Analysis of economic systems operating under capitalism, socialism, communism, and fascism; institutions and organization of production and government; decision-making; distribution of income; problems of developing nations.

ECN 327. Money and Banking (3) Prerequisite: ECN 222. A theoretical and empirical analysis of the effects of money on aggregate income and employment and the average price level. Analysis of the tools and policy of the Federal Reserve System. An overview of banks and other financial institutions.

ECN 328. Public Finance (3) Prerequisite: ECN 222. Study of state, local, and federal government revenue and expenditures; theory of taxation, tax shifting and incidence; theory of public goods, fiscal neutrality and government regulation; methods of achieving efficiency in government benefit-cost analysis, program budgeting (PPB), and pricing of government services.

ECN 329. Industrial Organization (3) Prerequisite: ECN 222. A theoretical and empirical study of how the structure of industry affects the conduct and performance of the firm; covers government regulation, control and influence in business activity with respect to structure, conduct and performance.

ECN 421. History of Economic Thought (3) Prerequisite: ECN 222. Scientific economic thought and philosophy from ancient to modern times. Open-ended as to dates of time period covered. Primary emphasis is on topics as opposed to schools of thought.

ECN 422. Econometrics (3) Prerequisite: PDS 217 and ECN 321. An introduction to the formalization of economic hypotheses into testable relationships and the application of appropriate statistical techniques. Theoretical aspects are covered, but primary emphasis is on computer application utilizing regression analysis.

ECN 426. International Trade and Finance (3) Prerequisite: ECN 222. A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates and balance of payments problems.

ECN 427. Labor Economics (3) Prerequisite: ECN 222. An analysis of the demand for and the supply of labor at the individual and the aggregate level; labor unions and collective bargaining.

ECN 428. Regional Growth and Development (3) Prerequisite: ECN 222. Theories of subnational or regional economic growth. Measures of regional economic policies to alleviate problems resulting from disparate rates of regional economic growth.

ECN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ECN 495. Senior Seminar in Economics (3) Prerequisite: ECN 322 and consent of instructor. An examination of current problems in economics organized on a discussion-research basis. The content of the course will vary as changing conditions and economic priorities require the use of new approaches to deal with current issues.

ECN 498. Internship in Economics (1-3) Prerequisite: Senior status and consent of department chairman. Involves the application of economics concepts in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

ECN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

Finance Course Descriptions

(Department of Economics and Finance)

FIN 235. Personal Finance (3) Study of individual and family financial decisions. Designed to prepare the student to exercise intelligent control over income, expenditures, borrowing, savings and investments. Recommended elective for non-business majors. (Not open to students who have earned credit for FIN 330.)

FIN 330. Principles of Investments (3) Prerequisite: ACG 201 or ECN 222. An introduction to alternative investments, with major emphasis on financial instruments. Practical descriptive material and relevant theoretical applications. Topics include stocks, bonds, and other financial alternatives.

FIN 331. Real Estate (3) Prerequisite: ACG 201 and ECN 222. Principles of property management and practices relating to appraisal, sales, ownership, control, financing, and transfer of real property.

FIN 332. Risk Management and Insurance (3) Prerequisite: ACG 201 and ECN 222. An introduction to the risk management function and to the basic methods used to handle risks facing the business enterprise, families and individuals. Emphasis is on the insurance method of handling risk with study of the concepts underlying insurance, the fundamentals of insurance contracts, and a broad selection of policy coverages in the property and liability, and life and health fields.

FIN 335. Business Finance (3) Prerequisite: ACG 203 or 204 or 305 and PDS 217 and ECN 222. An introduction to the finance function of business enterprise and to the analytical techniques used in making investment and financing decisions.

FIN 336. Capital Budgeting Analysis (3) Prerequisite: FIN 335. The study of the theory and practice of capital expenditure management including investment decisions and their impact on cash flows, business firm valuation, and the capital asset pricing model. Use of cases and financial analysis.

FIN 430. Investment Management (3) Prerequisite: FIN 330 and 335. An analytical approach to the valuation of stocks, bonds and options and the placement of those securities in Markowitz-efficient portfolios. Technical and fundamental analysis, market efficiency and valuation methods are examined. Both application and theory are emphasized.

FIN 431. Real Estate Investment Analysis (3) Prerequisite: FIN 335. The decision making process in real estate investment analysis including risk and return, financing alternatives, tax implications, and pricing and development alternatives.

FIN 436. Financial Management (3) Prerequisite: FIN 335. Financial analysis and decision making in the modern business organization. Theoretical foundations of financial decision making are emphasized, including both working capital and fixed capital requirements.

FIN 437. Management of Financial Institutions (3) Prerequisite: ECN 324 and FIN 335. A case study course in the management of financial institutions with emphasis on commercial banks and savings and loan associations. Major emphasis on defining the functional areas within the institutions and the associated decision making process.

FIN 438. Commercial Lending and Credit Analysis (3) Prerequisite: FIN 335. An examination of the sources of commercial loans, financial statement analysis, working capital, the elements and purposes of commercial lending policies, the credit analysis decision, and follow-up procedures for commercial lending.

FIN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

FIN 495. Senior Seminar in Finance (3) Prerequisite: FIN 436 and senior standing. An examination of current problems in finance. Course content will vary as new techniques are developed to respond to a dynamic financial environment.

FIN 498. Internship in Finance (1-3) Prerequisite: Senior status and consent of department chairman. Involves the application of financial concepts in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

FIN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

MANAGEMENT AND MARKETING

Dr. Latham, Chairman. Dr. Adams, Dr. A. Anderson, Dr. D. Bojanic, Dr. Engdahl, Dr. Harper, Dr. Honeycutt, Dr. Howe, Dr. Keating, Ms. Marshall, Dr. Sherman, Dr. West.

The Management and Marketing degree programs provide preparation for careers in product and service organizations. Each program of study is based on a broad educational foundation combined with courses in Accounting, Finance, Management, Marketing, and Economics. Both programs are also designed for students who wish to pursue other professions in legal, governmental, and not-for-profit institutions. Students are permitted some latitude in selecting courses and may choose to concentrate in Management or Marketing. Within the B.S. degree program with a concentration in Business Management, the student may elect an emphasis in business management or a program of courses designed to meet the specific interest of the student. Within the field of Management, the student selects from courses in human resource management, organization behavior, small business management, and business information systems and should consider additional electives in computer science and the social sciences.

Requirements for a concentration in Business Management for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201, ECN 221-222, 324, BLA 361, PDS 217, 313, 314, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses:
(1) Students seeking a study of Business Management will complete, in addition to

the courses named in (a) above, ACG 203, PDS 317, BLA 461, MGT 358, and four courses from the following: MGT 351, 356, 453, 454, 456, 495, ECN 320, MKT 344, 448.

(2) Students seeking a study of Business Management in an area of particular interest, such as small business management or human resource management, will complete, in addition to the courses named in (a) above, ACG 203, PDS 317, BLA 461, and 15 semester hours in the Cameron School of Business Administration in courses numbered above 299 (except 491 and 498) with prior approval of the Director, Undergraduate Advising Center.

Requirements for a concentration in Marketing for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201, ECN 221-222, 324, BLA 361, PDS 217, 313, 314, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses: In addition to the courses named in (a) above, the following courses must be completed: ACG 203, PDS 317, MKT 341, 445, and four courses from the following: MKT 344, 346, 347, 349, 442, 495.

Management Course Descriptions

(Department of Management and Marketing)

MGT 350. Organization Theory and Behavior (3) Prerequisite: ACG 201 and junior standing. Study of theories, research and concepts underlying the structure and processes of complex organizations. Emphasis on problem solving issues and applications in organization design, leadership, motivation and interpersonal communications.

MGT 351. Business Communications Skills (3) Prerequisite: ENG 102, ACG 201, ECN 221. Fundamentals of business communications with emphasis on preparing formal business reports. Emphasis is on the communication process in management, including primary and secondary research, business writing, and making oral presentations.

MGT 356. Human Resource Management (3) Prerequisite: MGT 350. Evaluation of concepts and approaches used in human resource management and development. Study of manpower planning, selection procedures, performance review, compensation and benefits, equal employment/affirmative action factors, and labor relations. Emphasis is on how personnel specialists and operating managers can improve organizational performance.

MGT 358. Organizational Behavior (3) Prerequisite: MGT 350. Application of behavioral science concepts in the management of organizations. Emphasis on increasing productivity on the individual, group, and organizational level. Particular attention directed to analyzing organizations, developing motivational programs, designing enriching jobs, leadership development, and managing organizational change.

MGT 453. Management of Small Business (3) Prerequisite: BLA 361, MGT 350, MKT 340, FIN 335 and senior standing. Examination of the factors involved in managing an existing small business. Emphasis on tailoring the marketing mix to specific target

markets, financial planning and control, and operational aspects of small business including supplier relations, taxation, and credit collection.

MGT 454. Entrepreneurship (3) Prerequisite: MGT 453. Primary focus on starting a new business. Specific areas include identifying business opportunities, conducting feasibility studies, developing the business plan, evaluating alternative ways of financing new ventures, identifying the appropriate legal form of organization, and managing for tax planning. Purchasing an existing business and acquiring a franchise are also addressed.

MGT 455. Business Policy (3) Prerequisite: MGT 350, PDS 317, BLA 361, MKT 340, FIN 335. Capstone course integrating the functions and policies of business decision making at the policy making level of management. Case study method is use.

MGT 456. Industrial Relations (3) Prerequisite: MGT 356. Analysis of management techniques for the administration of labor agreements; study of collective bargaining and union-management relations; and evaluation of labor relations in union and non-union organizations. Case studies provide realistic experience for both private and public sector labor relations.

MGT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

MGT 495. Senior Seminar (3) Prerequisite: MGT 350 and senior standing. Special topics in management not regularly addressed in other management courses.

MGT 498. Internship in Management (1-3) Prerequisite: Senior standing and consent of faculty supervisor. Involves the application of management knowledge in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

MGT 499. Honors work in Management (2-3) Prerequisite: Senior standing. Independent work for honors students.

Marketing Course Descriptions

(Department of Management and Marketing)

MKT 340. Principles of Marketing (3) Prerequisite: ACG 201 and ECN 221. Introduction to the concepts, activities and decisions that relate to the marketing function in business and non-business organizations in domestic and international settings. Focus on development and implementation of marketing strategies through the use of marketing mix variables of product, price, place, and promotion.

MKT 341. Marketing Research (3) Prerequisite: PDS 217 and MKT 340. The development and utilization of marketing research techniques for decision making. Emphasis on the specification, accumulation, analysis, interpretation and presentation of information to help management understand the environment, identify problems and opportunities, and develop and evaluate courses of marketing action.

MKT 344. Distribution Management (3) Prerequisite: MKT 340. An introduction to physical distribution from an institutional and managerial perspective. Study of channel structure, legal factors, performance measurement, inventory control, and trends in the channel environment. Emphasis on the design and management of a physical distribution system.

MKT 346. Retail Management (3) Prerequisite: MKT 340. Examination of the principles and methods of retailing. Study of social, political, ethical, and economic environments. Emphasis on market segmentation, merchandising, and managerial control.

MKT 347. Promotion Management (3) Prerequisite: MKT 340. The promotion mix, with an emphasis on advertising and sales promotion, as a component of the marketing mix and overall organizational strategy from the perspective of the marketer, advertiser, agency, consumer and public.

MKT 349. Consumer Behavior (3) Prerequisite: MKT 340. Behavioral science concepts and principles and how they contribute to effective and efficient marketing activities from the perspective of the consumer, marketer and public policy maker.

MKT 442. International Marketing (3) Prerequisite: MKT 340. Focus is on the special framework in which international marketing is conducted. Influence of international institutions, culture, stage of economic development, geography and demography are covered. Emphasis on multinational marketing problems and opportunities in an ever changing world.

MKT 445. Marketing Management (3) Prerequisite: MGT 350, MKT 341 and senior standing. Concepts of demand analysis, formulating marketing strategy, establishing policies and procedures, coordinating marketing action, and evaluating performance.

MKT 448. Sales Management (3) Prerequisite: MGT 350 and MKT 340. Focus on developing and maintaining an effective sales organization. Emphasis on the role of the salesperson, motivating the sales force, and designing and implementing selling strategies.

MKT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

MKT 495. Seminar in Marketing (3) Prerequisite: MKT 340 and senior standing. Special topics in marketing not regularly addressed in other marketing courses.

MKT 498. Internship in Marketing (1-3) Prerequisite: Senior standing and consent of faculty supervisor. Involves the application of marketing knowledge in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or a not-for-profit organization and a faculty supervisor.

MKT 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

PRODUCTION AND DECISION SCIENCES

Dr. J. Anderson, Chairman. Dr. Badarinathi, Mr. Burke, Dr. Garris, Dr. Gingrich, Mr. Gowan, Ms. Honeycutt, Dr. Schell.

The Department of Production and Decision Sciences supports degree programs in the departments of the Cameron School of Business Administration through course offering in the areas of management information systems, production and operations management, and quantitative analysis. Students pursuing the B.S. degree with a concentration in business management may arrange alternative studies in the production and decision sciences areas with prior approval of the Director of the Undergraduate Advising Center.

Production and Decision Sciences Course Descriptions

(Department of Production and Decision Sciences)

PDS 217. Statistical Analysis for Business and Economics (3) Prerequisite: MAT 111. Classification and presentation of business and economics data, probability and expected value, statistical inference, simple linear regression and correlation analysis and forecasting.

PDS 313. Introduction to Management Information Systems (3) Prerequisite: ACG 201 and MGT 350. Introduction to the nature, role and implementation of information systems in organizations. Topics include specification of information requirements in the functional areas of organizations, and implementation considerations important to both the MIS manager and the non-MIS manager.

PDS 314. Introduction to Management Science (3) Prerequisite: MAT 151, PDS 217, ACG 201, and ECN 222. Deterministic and probabilistic models applied to support management decision making. Topics include linear programming, inventory control, networks, waiting lines, and simulation.

PDS 317. Production and Operations Management I (3) Prerequisite: PDS 314 and MGT 350. Analysis of concepts, tools, and techniques used in production planning and control, materials management, inventory control, and labor force management. Particular attention directed to the study of production process alternatives.

PDS 318. Advanced Statistical Analysis for Management (3) Prerequisite: PDS 217. Statistical inference as applied to management decision making. Topics include linear and non-linear regression models, analysis of variance and covariance, time series analysis, experimental design, and nonparametric statistical techniques. Applications require the use of statistical analysis programs on the computer.

PDS 413. Management Information Systems Development (3) Prerequisite: PDS 313. Examination of the systems development life cycle and structured systems analysis and design techniques. Application of selected techniques, including the use of CASE software, through student projects.

PDS 414. Introduction to Business Simulation (3) Prerequisite: PDS 317. Introduction to simulation models as tools in the analysis of business problems. Discrete event

simulation models and dynamic information feedback models are introduced through the use of a computer simulation language.

PDS 415. Decision Support Systems (3) Prerequisite: PDS 413. Examination of the process of specifying and implementing decision support systems in organizations. Topics include an overview of current uses of artificial intelligence and expert systems in the business environment.

PDS 417. Production and Operations Management II (3) Prerequisite: PDS 317. Further study in the design, management and control of production systems. Topics include logistics management, capacity planning, scheduling, just-in-time, optimized production techniques and quality assurance. Emphasis on the use of computer to analyze complex production and operations management case problems.

PDS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PDS 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

SCHOOL OF EDUCATION

Roy E. Harkin, Dean
Calvin L. Doss, Assistant Dean
Robert E. Tyndall, Assistant Dean

The School of Education at The University of North Carolina at Wilmington offers programs of study leading to the Bachelor of Arts degrees in Elementary Education, Middle Grades Education, and Special Education and programs leading to secondary (9-12) and special subjects (K-12) teacher certification. In addition, graduate programs in Elementary Education, Reading Education, Special Education, Educational Administration and Supervision and the Master of Arts in Teaching are offered.

Responsibility for the degree and certification programs within the School of Education is shared by the Department of Educational Design and Management and the Department of Curricular Studies.

Students wishing to pursue teacher preparation programs must be formally admitted to the School of Education and to the Teacher Education Program. Requirements for admission are:

1. Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.
2. Completion of EDN 200, Teacher, School, and Society, with a grade of "C" or better.
3. Completion of four semesters or two academic years of full-time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale.
4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

NOTE: Degree programs in Elementary Education, Middle Grades Education, Special Education, and Health and Physical Education are currently under review and are subject to changes resulting from recommendations of the North Carolina Task Force on the Preparing of Teachers and new State Department of Public Instruction regulations. Beginning with the Fall Semester, 1990, students entering the School of Education and the Teacher Education Program will be subject to these changes. Students should consult advisors regularly in order to incorporate these changes in their programs.

EDUCATION DESIGN AND MANAGEMENT

Dr. Ellis, Chairman. Dr. Applefield, Dr. Bryan, Dr. Doss, Dr. Earle, Dr. Harkin, Dr. A. Hayes, Dr. Hulon, Dr. Johnston, Dr. Joslin, Dr. Mullendore, Dr. Wagoner.

The Department of Educational Design and Management provides basic professional education courses for the undergraduate programs in Elementary, Middle Grades, Secondary, and Special Education and is responsible for the program of study leading to the Master of Education degree in Educational Administration and Supervision.

The Master of Education program in Educational Administration and Supervision is described in the Graduate Studies section of this catalogue.

CURRICULAR STUDIES

Dr. H. Hayes, Chairman. Dr. Andrews, Dr. Bachner, Dr. Bartolome, Dr. Burton, Dr. Huber, Dr. Jones, Dr. LaNunziata, Dr. Lockledge, Dr. Raab, Dr. Thomas, Dr. Walker, Dr. Wright.

The Department of Curricular Studies is responsible for the programs of study leading to the Bachelor of Arts degrees in Elementary Education, Middle Grades Education, and Special Education, the programs leading to secondary (9-12) and special subject (K-12) teacher certification, the programs leading to the Master of Education in Elementary Education, in Reading Education, and in Special Education, as well as the Master of Arts in Teaching.

The Bachelor of Arts program in Elementary Education, which leads to certification to teach in grades kindergarten through six.

The Bachelor of Arts program in Middle Grades Education leads to certification to teach in grades six through nine.

The Special Education program prepares teachers to service mildly handicapped children from kindergarten through grade twelve in public schools and in various other service agencies and leads to North Carolina teacher certification in three areas of exceptionality: learning disabilities, mental retardation, and emotional disturbance.

The Master of Arts in Teaching includes a professional core and academic tracks in Biology, Chemistry, English, History, and Mathematics. The program is described in the graduate studies section of this catalogue.

Each degree program is designed to meet North Carolina State Board of Education guidelines for teacher certification and includes recommended courses in basic studies, professional education and collateral areas, and a content specialization. Adjustments in program requirements are made as guidelines change.

The Master of Education programs in Elementary Education, Reading Education, and Special Education are described in the graduate studies section of this catalogue.

DEGREE REQUIREMENTS FOR ELEMENTARY EDUCATION

Common Requirements for Early Childhood and Intermediate Education:

NOTE: The degree program in Elementary Education is currently under review and is subject to changes resulting from recommendations of the North Carolina Task Force on the Preparation of Teachers.

Basic Studies

Courses listed below are selected to meet North Carolina State Board of Education guidelines for elementary teacher certification. They only partially satisfy University basic studies requirements. To complete the University requirements, as listed on pages 76-77 of this catalogue additional courses in either the Humanities or Natural Science and Mathematics areas will be needed. However, these courses may be taken as part of the content specialization.

Basic Skills

English Composition (six semester hours)

English 101

English 102

Physical Education (two semester hours)

Physical Education 101

Humanities (twelve semester hours)

Literature, three semester hours from the following: English 110, 210, 211, 212, 219, 230, 250

Communication 105

History, Six semester hours from the following: History 101, 102, 201, 202

Creative Arts, (six semester hours)

Art 201, 202, or 204, and Music 105 or 115

Natural Science and Mathematics (ten semester hours)
Natural sciences: one laboratory course from Biology, Chemistry, Geography, Geology, or Physics
Mathematics 141 and 142
Social and Behavioral Sciences (six semester hours)
Political Science 101
Sociology/Anthropology 205

Collateral Requirements

HEA 304	Health and Safety Education (K-9)
PHY 205	Science for Elementary Teachers
PED 386	Physical Education in the Primary Grades

Professional Core

PSY 216	Educational Psychology
PSY 220	Child Psychology
EDN 200	Teacher, School and Society
EDN 201	Instructional Development I
EDN 202	Instructional Development II

Professional Semester

EDN 410	Seminar in Education, (K-6, 6-9, Special Education)
EDN 411	Practicum, (K-6, 6-9, Special Education)

Requirements for a concentration in Elementary Education for the B.A. Degree:

Professional Education

EDN 250	Reading Foundations, (K-9)
EDN 322	The Teaching of Mathematics, (K-6)
EDN 334	Social Studies Curriculum and Instruction, (K-9)
EDN 336	The Teaching of Science and Health, (K-6)
EDN 344	Literature in the Elementary School, (K-6)
EDN 348	The Teaching of Communication Arts, (K-6)

Content Specialization

A content specialization comprised of 18 to 21 semester hours, including courses to fulfill basic studies and collateral requirements, must be completed in one of the areas listed below. Specialization in one of the four basic curriculum areas--Language Arts, Mathematics, Science, Social Studies--is recommended. Specific course options and credit hour requirements for each specialization are available from academic advisors and the department chairperson.

Health	Physical Education
Language Arts	Science
Mathematics	Social Studies

A grade of "C" or better is required in all courses in the Elementary Education Professional Core and Professional Education Concentration. Students may repeat courses in which they earn a grade lower than "C" only with the permission of the Dean of the School of Education.

DEGREE REQUIREMENTS FOR MIDDLE GRADES EDUCATION

NOTE: The degree program in Middle Grades Education is currently under review and is subject to changes resulting from recommendations of the North Carolina Task Force on the Preparation of Teachers.

Basic Studies

Basic studies courses specified below are selected to meet North Carolina State Board of Education guidelines for Middle Grades teacher certification. They only partially satisfy University basic studies requirements listed on pages 76-77 of this catalogue. To complete University requirements, additional courses in Humanities or Natural Science and Mathematics will be needed. However, such courses may be taken as part of the content specialization.

English Composition (six semester hours)
- English 101
- English 102

Physical Education (two semester hours)
- Physical Education 101

Humanities (12 semester hours)
- Literature, three semester hours from the following: English 110, 210, 211, 212, 219, 230, 250
- Communication 105
- History
  - Six semester hours from the following: History 101, 102, 201, 202

Creative Arts (three semester hours)
- One from Art 201, 202, 204, Music 105 or 115

Natural Science and Mathematics (10 semester hours)
- Natural Sciences: one laboratory course from Biology, Chemistry, Geography, Geology, or Physics
- Mathematics 141 and 142

Social and Behavioral Sciences (three semester hours)
- Political Science 101

Collateral Requirements

Cultural Arts

Select six semester hours from the following: Art 201, 202, 204, 307, 385; Drama 130, 135, 136, 221, 225; Music 116, 117, 118, 361-62-63

Health and Physical Education

Health 304, Health and Safety Education (K-9)

Professional Core

PSY 221	Adolescent Psychology
EDN 200	Teacher, School and Society
EDN 201	Instructional Program Development I
EDN 202	Instructional Program Development II

Professional Semester

EDN 410 Seminar in Education, (K-6, 6-9, Special Education)
EDN 411 Practicum, (K-6, 6-9, Special Education)

Requirements for a concentration in Middle Grades Education for the B.A. Degree:

Professional Education

EDN 318 The Middle School
EDN 250 Reading Foundations, (K-9)

Content Specialization

Two content area specializations must be selected, at least one of which must be from the four basic curriculum areas--Language Arts, Mathematics, Science, Social Studies. Specific course options and credit hour requirements are available from advisors or the department chairperson. A grade of "C" or better is required of all courses in the Professional Core and Professional Education concentration. Students may repeat courses in which they earned a grade of lower than "C" only with the permission of the Dean of the School of Education.

DEGREE REQUIREMENTS FOR SPECIAL EDUCATION

NOTE: The degree program in Special Education is currently under review and is subject to changes resulting from recommendations of the North Carolina Task Force on the Preparation of Teachers.

General Requirements in Special Education:

Basic Studies

English Composition (six semester hours)
- English 101
- English 102

Physical Education (two semester hours)
- Physical Education 101

Humanities (12 semester hours)
- History 101 or 102
- History 201 or 202
- Communication 105
- English 110, 210, 211, or 212

Creative Arts (six semester hours)
- Choose two courses from two different areas
  - Art 201, 202, or 204
  - Drama 221 or 225
  - Music 115

Natural and Mathematical Sciences (13 semester hours)
Natural Science
Choose 2 courses from 2 different science areas. One course must be a lab science.
Biology 105
Chemistry 103
Geography 130 or 230
Geology 101, 120, or 150
Physics 105

Mathematical Sciences
Mathematics 141 and 142

Social and Behavioral Sciences (six semester hours)
Choose two courses from two different areas.
Economics 125
Political Science 101
Sociology 105, Anthropology 105, or Geography 140

Professional Core

Psychological Foundations (9 semester hours)

PSY 216	Educational Psychology
PSY 322	Psychology of Exceptional Children
PSY 323	Lifespan Human Development

Educational Foundations (13 semester hours)

EDN 200	Teacher, School and Society
EDN 201	Instructional Development I
EDN 202	Instructional Development II
EDN 260	Introduction to Exceptional Children

Curricular Foundations (18 semester hours)

EDN 250	Reading Foundations, (K-9)
EDN 322	The Teaching of Mathematics, (K-6) or
EDN 323	The Teaching of Mathematics, (4-9)
EDN 367	Behavior Management Techniques
EDN 368	Diagnostic Techniques in Special Education
EDN 369	Prescription Development in Special Education
EDN 374	Special Education Curriculum and Instruction

SPECIAL EDUCATION CONCENTRATION (21 semester hours)
Choose one concentration area.
Emotional Disturbance

EDN 370	Behaviorally Disordered Children and Youth
EDN 371	Programming and Interventions for Behavioral Disordered Students
EDN 410	Seminar in Education, (K-6, 6-9, Special Education)
EDN 411	Practicum, (K-6, 6-9, Special Education)

Learning Disabilities

EDN 366	Learning Disabled Children and Adolescents
EDN 372	Programming and Interventions for Learning Disabled Students
EDN 410	Seminar in Education, (K-6, 6-9, Special Education)

EDN 411 Practicum, (K-6, 6-9, Special Education)

Mental Retardation
EDN 364 Mental Retardation in School and Society
EDN 373 Programming and Interventions for Mentally Handicapped Students
EDN 410 Seminar in Education, (K-6, 6-9, Special Education)
EDN 411 Practicum, (K-6, 6-9, Special Education)

ELECTIVES
Careful selection of electives may enable the student to obtain a second concentration in special education, or a collateral in a related area.
Second Special Education Concentration (for certification)
Take 12 hours in one area plus 6 hours of electives.

Emotional Disturbance
EDN 370 Behaviorally Disordered Children and Youth
EDN 371 Programming and Interventions for Behavioral Disordered Students
EDN 412 Extended Practicum

Learning Disabilities
EDN 366 Learning Disabled Children and Adolescents
EDN 372 Programming and Interventions for Learning Disabled Students
EDN 412 Extended Practicum

Mental Retardation
EDN 364 Mental Retardation in School and Society
EDN 373 Programming and Interventions for Mentally Handicapped Students
EDN 412 Extended Practicum

Collateral in a related area:
Choose 12 hours in one area plus 6 hours of electives (Elementary Education or Middle-School education, psychology, math, science, English, physical education, recreation, or sociology.)
A grade of "C" or better is required in all courses in the Professional Core and Special Education Concentration. Students may repeat courses in which they earned a grade lower than "C" only with the permission of the Dean of the School of Education.

Teacher Certification Program in Secondary and Special Subjects
Programs leading to teacher certification are offered in the secondary (9-12) fields of Biology, Chemistry, Geology, English, French, History, Mathematics, Physics, and Spanish, and in the special subject (K-12) fields of Health and Physical Education. Also, students who concentrate in History, Political Science or Sociology may fulfill subject matter requirements for Social Studies certification by completing a minimum of 21 semester hours in three Social Studies areas other than the discipline of major concentration.
Students who concentrate in Biology, Chemistry, Earth Science or Physics may fulfill requirements for Science certification by completing 21-23 semester hours in three science areas other than the discipline of major concentration. Students wishing to prepare themselves as secondary teachers are required to fulfill degree requirements in an appropriate academic discipline and to complete the following sequence of professional courses:

PSY 216	Educational Psychology
PSY 221	Adolescent Psychology
EDN 200	Teacher, School, and Society
EDN 201	Instructional Program Development I
EDN 356	Reading in the Secondary School
EDN 408	Instructional Methods
EDN 409	Practicum

Students must take all the professional courses listed above preceding EDN 408 and 409 and earn a grade of "C" or better before the student teaching semester. Students seeking secondary teacher certification must be formally admitted to the Teacher Education Program prior to the student teaching semester. Standards for admission are:

(1) Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.
(2) Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.
(3) Completion of four semesters or two academic years of full-time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale.
(4) Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

Education Course Descriptions

EDN 105-106. Seminar in Education (1, 1) Prerequisite: Permission of Instructor. Required of all North Carolina Teaching Fellows during freshman year. Open to others if space is available. An examination of issues and foreces related to public education and the profession of teaching in the United States. Topics include political, social, and instructional issues. Emphasis also upon the development of skills essential to academic success. Activities include lectures, discussions, field activities, and reading of selected educational literature. One hour each week.

EDN 200. Teacher, School, and Society (4) Introduction to profession of teaching that acquaints prospective teachers with diverse roles of teachers. Focuses on teacher as decision-maker; careers in education; social, historical and philosophical foundations of education; governmental and organizational aspects of schools; and current and future trends in American education. Observation skills are developed through field experience. Three hours of small group instruction, one hour of large group instruction, and a minimum of one hours of off-campus observation each week.

EDN 201. Instructional Program Development I (3) Prerequisite: Education 200 or permission of department chairman. The first of a two-part sequence designed to provide the conceptual tools and analytic skills necessary to plan, implement, and evaluate instructional programs. This course will focus on the fundamental components of instructional development for teachers. Topics of study include instructional theory, types of learning, instructional objectives, planning strategies, task analysis, organization for instruction, and design of instructional systems. Three hours each week.

EDN 202. Instructional Program Development II (3) Prerequisite: Education 201. The second of a two-part sequence in instructional design, this course will develop further the specific skills in instructional development, critical analysis, and communication. Topics of study include selection and evaluation of instructional resources, design of feedback systems, measurement, and data organization and interpretation. Three hours each week.

EDN 205-206. Seminar in Education (1, 1) Prerequisite: Permission of Instructor. Required of all North Carolina Teaching Fellows during sophomore year. Open to others if space is available. An examination of the diverse roles of professional employed within the organization of public schools in the State of North Carolina, including demands and expectations of teaching at various grade levels K-12. Topics include a review of the academic, social, personal, and interpersonal skills required of successful professionals. Current isues and future trends in the field are examined. Activities include required field experiences, lectures, discussions, and reading of selected educational literature. One hour each week.

EDN 250. Reading Foundations (K-9) (3) A foundations course for all elementary and special education majors. Emphasis on linguistic and psychological bases of the reading process, stages in the development of reading ability, and sequences of skill acquisition. Students will study models of reading instruction, the role of the classroom teacher of reading, and forces influencing that role. Three hours each week.

EDN 260. Introduction to Exceptional Children (3) Survey of major categories of exceptionalities including giftedness, mental retardation, hearing impairments, visual impairments, learning disabilities, communication disorders, emotional handicaps, and physical handicaps. Includes definitions, characteristics, etiology, psycho-social implications, and educational intervention of each exceptionality. Three hours each week.

EDN 310. School-Community Relations (3) Methods of improving school-community relations. Three hours each week.

EDN 311. Student Leadership in Higher Education (1) Develops an understanding of leadership theories and skills and their utilization in practical settings. Topics include: (a) realizing the impact of student leadership, (b) understanding leadership theories, (c) developing a leadership style, (d) improving leadership skills, (e) use of the situational leadership model, and (f) working with a variety of personality types. One hour each week.

EDN 318. The Middle School (3) An overview of the conceptual and historic development of the middle school. Major emphasis on exploring the educational implications of the developmental characteristics of middle grade learners. The multiple roles of the middle grades teacher, special needs of exceptional students, and organizational/management approaches will be stressed. Three hours each week.

EDN 319. Individualizing Instruction (3) Prerequisite: Education 201 and Psychology 216. This course will focus on strategies for meeting needs of individuals in the regular classroom. Students will study alternative methods for dealing with pupil differences that have an impact on learning. Characteristics of children with academic, intellectual, social-emotional physical, cultural and language differences will be examined. Three hours each week.

EDN 322. The Teaching of Mathematics, (K-6) (3) Prerequisite: Education 201 and six semester hours of appropriate mathematics. Focus on the curriculum, materials, and methods appropriate for the teaching of mathematics for the kindergarten through sixth grade level. A field-based activity is required. Three hours each week.

EDN 323. The Teaching of Mathematics, (4-9) (3) Prerequisite: Education 201 and six semester hours of appropriate mathematics. Focus on materials and methods for teaching mathematics in grades 4-9. Logical, psychological and sociological considerations of the teaching of mathematics. Examination of curricula appropriate at the intermediate and middle school levels. Three hours each week.

EDN 324. Diagnostic Teaching of Mathematics (3) Understanding of psychological and environmental factors that affect learning of school mathematics. Focus on methods and materials appropriate to diagnosis and remediation of mathematics difficulties common at the 6-9 level. Awareness of strategies effective for enhancing self-confidence in mathematics learning. A field based activity is required. Three hours each week.

EDN 334. Social Studies Curriculum and Instruction (K-9) (3) Prerequisite: Education 201, and six hours of social studies content. An overview of curriculum content and various ways of organizing it will be emphasized. The implications of learner developmental characteristics for selecting approaches to instruction in social studies will be explored. Topic selections and sequencing of curriculum will be examined as will the connections between social studies and the social sciences. The course will examine the places of concept learning, generalizations, and factual knowledge in social studies curriculum. Three hours each week.

EDN 335. Social Studies Education in the Middle Grades (3) Examines the specific ways in which social studies curriculum can be organized to meet the learning needs of middle grades students. Instructional strategies which emphasize problem solving, values investigation, identify bias and interpretation, and the relevance of social inquiry to the real world will be stressed. Three hours each week.

EDN 336. The Teaching of Science and Health (K-6) (3) Prerequisite: Education 201, Physics 205, or two science laboratory courses. Methods of teaching the biological and physical sciences and health. Applications of the sciences to classroom experimentation and investigation. Examination of contemporary curricula used at the elementary school level. Three hours each week.

EDN 337. Inquiry—The Method of Science (3) Prerequisite: A course in science methods or the completion of 15 hours toward a concentration or major in science or permission of instructor. Assumes initial level competency in curriculum and methods of science. Focuses on conceptualization of and rationale for using inquiry method of teaching science. Provides opportunities to acquire and practice skills needed to utilize method and to guide scientific investigation at K-12 levels.

EDN 344. Literature in the Elementary School, (K-6) (3) Prerequisite: Education 250. The selection and evaluation of literature for elementary school children, including books and other media. Includes exploration of multi-cultural themes and traditions through literature, and strategies for integrating literature, music, and movement into the elementary curriculum.

EDN 348. The Teaching of Communication Arts (K-6) (3) Prerequisite: Education 201 and 250. Examination of various approaches to school language instruction. Emphasis on strategies and methods for promoting growth in language learning in elementary classrooms. Drama and theater activities will be utilized to enhance language learning.

Includes extensive opportunities to assess, teach, and evaluate all areas of children's language and reaching development in public school classrooms. Three hours each week.

DN 351. **Language Arts Methods for the Middle School (4-9) (3)** Prerequisite: Education 201 and 250. The status and process of reading/language growth of middle grade children will be studied. Building on the reading foundations course, students will learn how to extend basic reading skills and more specialized content reading skills. They will learn how to foster development of speaking, listening and writing skills as well as children's understanding of the structure and conventions of their language. Students will teach a variety of supervised lessons using an integrated reading/language arts approach as well as individualized instruction model. Three hours each week.

DN 355. **Developing Reading Competence in the Middle School (3)** Prerequisite: Education 202, and Psychology 221 or Education 318. Presents background and methodology for fostering and evaluating reading abilities of intermediate and middle school level students, both in language arts classes and in other subjects. Topics include comprehension and study skills needed for reading to learn in all areas of the curriculum, organizational and managerial strategies for reading instruction in grades 4-9, and techniques for motivating reluctant readers. Field experiences required. Three hours each week.

DN 356. **Reading in the Secondary School (3)** Prerequisite: Education 201. Required course in the teaching of reading for secondary majors. Basic instructional reading strategies are developed, with emphasis on introducing assignments, improving study skills, and fostering critical thinking. Students identify and learn to teach reading skills specific to varying content areas. Adjusting instruction to students' reading capabilities is stressed. Three hours each week.

DN 364. **Mental Retardation in School and Society (3)** Examination of field of mental retardation from an educational perspective. Study of etiology, definitions, characteristics, and historical and current approaches to the education of the mentally retarded. Includes study of all levels of severity of mental retardation. Three hours each week.

DN 366. **Learning Disabled Children and Adolescents (3)** Examination of the field of learning disabilities. Emphasis on the concept of learning disabilities, etiology, diagnosis, characteristics, teaching strategies, theory, historical influences, and current trends. Three hours each week.

DN 367. **Behavior Management Techniques (3)** Prerequisite: Education 200 or 201 or consent of instructor. Designed to develop an understanding of the principles of behavior and their application in planning and implementing various behavior management strategies. Focus will be on observation and measurement of social behavior management techniques in the special education and regular education classroom.

DN 368. **Diagnostic Techniques in Special Education (3)** Prerequisite: Education 201 and one of the following: Education 260, 364, or 366. Examination of concept and fundamentals of educational assessment. Includes examination of formal and informal diagnostic techniques appropriate for mildly handicapped children. Includes assessment of intellectual functioning, reading, mathematics, written expressions, spoken language, perception, and social-emotional skills. Three hours each week.

EDN 369. Prescription Development in Special Education (3) Prerequisite: Education 201 and 368. Development of skill in planning educational programs for exceptional children. Includes writing instructional objectives, selecting appropriate materials and techniques, writing lesson plans, and formulating individual educational programs. Three hours each week.

EDN 370. Behaviorally Disordered Children and Youth (3) Prerequisite: Education 200 and 201 or consent of the instructor. Designed to examine the wide and complex variety of learners labeled as "behaviorally disordered" or "emotionally disturbed". Topics related to historical, theoretical, etiological, developmental, and symptomological issues plus diagnosis, identification and major teaching strategies will be introduced. Program and parent involvement models and current trends and issues will be reviewed. Three hours each week.

EDN 371. Programming and Interventions for Behavioral Disordered Students (3) Prerequisite: Education 370 and Education 367. Examination of problems, issues and practices in developing programs for and educating students with behavioral disorders. Emphasis on assessment strategies, academic and social needs, major interventions, family involvement, scheduling issues, applied behavior analysis, systematic/directive teaching, and service delivery options. Legal considerations, consultation strategies and curriculum issues will be reviewed.

EDN 372. Programming and Interventions for Learning Disabled Students (3) Prerequisite: Education 366. Study of the characteristics of learning disabled students and their educational implications. Emphasis on service delivery options, needs of LD individuals relevant for instruction, medical interventions, behavioral interventions, family involvement, pre-school programming, secondary programming, remediation strategies, and compensation strategies.

EDN 373. Programming and Interventions for Mentally Handicapped Students (3) Prerequisite: Education 364 or Education 260. Study of the characteristics of persons with mental retardation and the implications of these characteristics for programming. Emphasis will be on programs in school, community, and institutional settings. Needs of persons with mental retardation during the preschool, school, and postschool years will be studied.

EDN 374. Special Education Curriculum and Instruction (3) Prerequisite: Education 250, Education 322/323, Education 260 and at least one of the following: Education 364, 366, 370. Study of the curriculum areas and instructional techniques utilized in educational settings for learning disabled, mentally retarded, and behaviorally/emotionally handicapped students. Emphasis on curriculum development processes, design of lesson and unit plans, selection of materials, identification of instructional procedures, data-based decision making, and consultation with other educators of exceptional learners.

EDN 404. Basic Philosophies of Education (3) Philosophies of education and their influence on the curriculum. Three hours each week.

EDN 407. Teaching Practices and Techniques (3) Development of techniques of teaching: successful practices in teaching. Three hours each week.

EDN 408. Instructional Methods (6) Corequisite: Education 409. Prerequisite: Education 200, 201, (or departmentally approved equivalents) and 250 or 356, as appropriate; Psychology 216 and 220 or 221 as appropriate and permission of the School of Education. Intensive examination of instructional methods in the student's area of specialization. Activities will be related to the student's practicum assignment, and emphasis will be placed on the development of instructional plans to be implemented in the practicum setting. Areas of specialization: English, French; Health; Mathematics; Physical Education; Science; Social Studies; Spanish.

EDN 409. Practicum (9) Corequisite: Education 408. Prerequisite: As specified for Education 408. Students will be assigned full-time to practicum sites within their areas of specializations. During the course, students will engage in a variety of supervised instructional activities, assuming increasingly wider responsibility for class instruction. Practica are offered in the areas of specialization listed above under Education 408.

EDN 410. Seminar in Education, (K-6, 6-9, Special Education) (3) Corequisite: Education 411. Prerequisite: All courses in the professional core and those professional courses appropriate for the concentration for K-9 majors and Special Education majors. Designed as a culmination of professional study and an initiation into student teaching and the teaching profession. Provides opportunities to extend and apply understandings of the roles of the teacher as a decision-maker, particularly in the areas of planning, instruction, management, and evaluation.

EDN 411. Practicum, (K-6, 6-9, Special Education) (12) Corequisite: Education 410. Prerequisite: As specified for Education 410. A full time practicum experience within the area of specialization. Students will engage in a variety of supervised instructional activities, assuming an increasing amount of responsibility for all phases of classroom instruction. Practica are offered in the areas of Elementary Education (K-6), Middle Grades Education (6-9), and Special Education.

EDN 412. Extended Practicum (3-6) Prerequisite: Appropriate curriculum and instruction courses and permission of the chairperson of the Department of Curricular Studies. A part-time practicum experience within the appropriate area of certification. Students will engage in supervised instructional activities that extend their understandings and teaching performance to an additional area of preparation. Areas of specialization include elementary, middle grades, special education, and secondary education.

EDN 415. Education Media Design and Production (3) This course will provide students with an understanding of the design principles underlying the production of instructional materials and with the necessary production techniques. Emphasis will be placed upon the production of materials and their effective integration into an instructional unit. Students will design, produce, and evaluate a number of projects using techniques common to media programs in public schools and the authors who have made contributions to this field. Three hours each week.

EDN 416. Instructional Applications of Computers (3) Prerequisite Education 201. Designed to develop skills in using computers as tools in instruction and to make judgments about instructional materials designed for use on computers. Topics include: (1) introduction to computing systems, (b) introduction to microcomputer programming languages, (c) authoring languages, (d) judging instructional "software", (e) using

computers to manage classroom records, (f) using computers in instruction, and (g) teleprocessing and automated data bases. Activities will include group lectures, demonstrations, and discussions, projects in software designed for classroom management and instruction. The major focus is on microcomputer application. Three hours each week.

EDN 430. Preschool Curriculum (3) Prerequisite: Education 201. Provides students the understandings, skills and abilities necessary to implement an effective preschool program. Emphasis placed on knowledge of the curriculum content and the effective combinations and correlations of these contents for a preschool program. Activities include lectures, discussions, demonstration, individual, and group projects. Three hours each week.

EDN 431. Teaching in the Primary Grades (3) Designed to develop a broad overall view of teaching in the primary grades. The course includes examination of the history, current "state of the art" and possible future of primary education. Focus is on the application of knowledge of child development and learning theories in organizing and implementing the primary school curriculum in an integrated and interdisciplinary fashion. Study of classroom organization and management for effective teaching in the primary grades will be undertaken. Three hours each week.

EDN 432. Interdisciplinary Curriculum and Instruction (3) Examines principles of interdisciplinary curriculum and instruction and explores its appropriateness for middle grades and intermediate students. Alternative approaches to designing interdisciplinary curriculum and instruction such as thematic units and exploratory and interest-based study will be examined. Emphasizes the possible linkages among the disciplines, focusing on thinking and communication skills, concept and problem solving learning, as well as values clarification/resolution. Three hours each week.

EDN 446. Black Literature and Resources for Teachers (3) A survey of Black literature, including the examination of materials published for classroom use in the public schools and the authors who have made contributions to the field. Three hours each week.

EDN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

EDN 495. Selected Topics in Education (1-3) Prerequisite: Junior or senior standing. Selected topics in education of varying duration and credit. May be repeated for a maximum of 6 semester hours.

EDN 499. Honors Work in Education (2-3) Prerequisite: Senior standing. Independent study for honors students.

For trial course offerings designated 292 and 492, see explanation on p. 78.

SCHOOL OF NURSING

Marlene M. Rosenkoetter, Dean

Bachelor of Science Degree

Dr. Faller, Dr. Gray, Ms. Horne, Ms. Howlett, Ms. Liebermann, Ms. Lowe, Ms. Newman, Ms. Majette, Ms. May, Ms. Steele, Ms. Stone.

The School of Nursing at The University of North Carolina at Wilmington offers a program leading to the Bachelor of Science degree with a concentration in professional nursing. The purpose of this baccalaureate program is to prepare a generalist who possesses the knowledge, skills, and attitudes with which to practice family-centered professional nursing in a variety of current and emerging health care delivery systems. In addition, the program is designed to provide a foundation for graduate nursing education. Through interactions with clients--individual persons, families and communities--and other health care professionals, nursing graduates will contribute toward meeting the wide-ranging needs of the region, state, and the larger community.

Program Objectives

The graduate of The University of North Carolina at Wilmington baccalaureate program in nursing is able to:

(1) Practice family-centered professional nursing based upon a conceptual framework in a variety of settings.

(2) Interact with individuals, families, and communities to promote an environment conducive to health.

(3) Utilize the nursing process in the delivery of health care to individuals, families, and communities.

(4) Base professional practice upon a synthesis of knowledge from social, behavioral, and natural sciences, nursing theory and research.

(5) Demonstrate commitment and accountability to health care consumers and to professional standards.

(6) Function as a self-directed learner who assumes responsibility for continued personal and professional growth.

(7) Assume a leadership role in the provision and coordination of health care through collaborative relationships with other health care professionals.

(8) Influence present and emerging roles of nursing practice to meet the health care needs of a changing society.

(9) Stimulate change within clients and health care delivery systems to more effectively promote the health of the community.

Degree Requirements for Bachelor of Science Degree
Concentration in Nursing
SAMPLE SCHEDULE
FIRST YEAR

Fall Semester

			Hours
ENG	101	English Composition	3
PED	101	Found. of Physical Activity	2
PSY	105	General Psychology	3
MAT	111	Precalculus Mathematics	3
CHM	115	Fund. of General Chemistry	4
TOTAL			15

Spring Semester

			Hours
ENG	102	English Composition	3
SOC	105	Intro. to Sociology	3
CHM	215	Organic/Biologic Chemistry	4
TOTAL			16

SECOND YEAR

Fall Semester

			Hours
BIO	240	Human Anatomy & Physiology	4
PSY	323	Lifespan Human Development	3
Creative Arts Elective			3
Humanities Elective			3
Free Elective			3
TOTAL			16

Spring Semester

			Hours
BIO	241	Human Anatomy & Physiology	4
BIO	246	Microbiology of Human Diseases	4
SOC	345	Sociology of the Family	3
+NSG	115	Intro. to Contemporary Nursing	1
Humanities or Creative Arts Electives**			3
TOTAL			15

Summer Session I

			Hours
NSG	200	Intro. to Nursing Assess/Int. I	2
NSG	200-51	Intro. to Nursing Assess/Int.I Laboratory	1
TOTAL			3

Summer Session II

			Hours
NSG	250	Intro. to Nursing Assess/Int. II	2
NSG	250-51	Intro. to Nursing Assess/Int.II Lab.	3

* **Can be taken concurrently with NSG 200 (transfer students)**

** **12 hours Humanities and 3 hours Creative Arts, or 9 hours Humanities and 6 hours Creative Arts.**

\+ **A minimum grade of "C" is required in each nursing course.**

THIRD YEAR

Fall Semester

			Hours
NSG	300	Nursing Process I	5
NSG	300-51	Nursing Process I Laboratory	3
NSG	310	Interactions in Nursing Prac. I	3
NSG	315	Nature of Man & Health in Modern Society	3
Free Elective (or senior year)			(3)
TOTAL			14-17

Spring Semester

			Hours
NSG	350	Nursing Process II	5
NSG	350-51	Nursing Process II Laboratory	3
NSG	360	Interactions in Nursing Prac. II	3
STT	210	Intro. to Statistics with Applications in Health Sciences	3
TOTAL			14

FOURTH YEAR

Fall Semester

			Hours
NSG	400	Nursing Process III	4
NSG	400-51	Nursing Process III Laboratory	3
NSG	410	Interactions in Nursing Practice III	3
NSG	415	Research in Nursing	3
TOTAL			13

Spring Semester

			Hours
NSG	450	Nursing Process IV	5
NSG	450-51	Nursing Process IV Laboratory	3
NSG	460	Interactions in Nursing Practice IV	3
NSG	490	Advanced Nursing Practicum	1
TOTAL			12-15

TOTAL HOURS: 57 hours - Concentration in Nursing (46%)
67 hours - Basic Studies and Collateral (54%)

Admission to the School of Nursing is dependent on University admission, recommendation of the Committee for Student Affairs of the School of Nursing, approval of the nursing faculty and meeting admission criteria, including the completion of required prerequisite courses.

Time Limits: Nursing courses must be completed within a consecutive six calendar year period of time.

Ten-Year Rule: Non-nursing courses which are more than ten years old will be evaluated by the School of Nursing faculty for currency and credit.

RN ACCESS Program for Registered Nurses

Prerequisite Courses		Hours	Hours
ENG	101	English Composition	3
ENG	102	English Composition	3
MAT	111	Precalculus Mathematics	3
PED	101	Fundamentals of Physical Activity	2
CHM	115	Fundamentals of General Chemistry	4
CHM	215	Organic/Biologic Chemistry	4
BIO	240	Human Anatomy and Physiology	4
BIO	241	Human Anatomy and Physiology	4
BIO	246	Microbiology of Human Diseases	4
PSY	105	General Psychology	3
PSY	323	Lifespan Human Development	3
SOC	105	Introduction to Sociology	3
SOC	345	Sociology of the Family	3
STT	210	Intro. to Statistics with Application in the Health Sciences*	
		Humanities Electives	9
		Creative Arts Electives	3
		Humanities or Creative Arts Electives	3
		Free Electives*	6
TOTAL PREREQUISITE CREDITS			67 (54%)

* STT 210 and one three-credit free elective may be taken concurrently with nursing courses.

Degree Requirements for Bachelor of Science Degree

Concentration in Nursing

RN ACCESS Program

SAMPLE SCHEDULE*

Summer Session I

			Hours
NSG	219	Interactions in Contemporary Nursing I	3
		TOTAL	3

Summer Session II

			Hours
NSG	250	Introduction to Nursing Assessment and Interven. II	2
NSG	250-51	Intro. to Nursing Assessment and Interven. II Lab	1
		TOTAL	3

Fall Semester

			Hours
NSG	379	Interactions in Contemporary Nursing II	1
NSG	389	Nursing Process in Contemporary Nursing	3
NSG	389-51	Nursing Process in Contemporary Nursing Lab	3
NSG	410	Interactions in Nursing Practice III	3
NSG	415	Research in Nursing	3
		TOTAL	13

Spring Semester

			Hours
NSG	450	Nursing Process IV	5
NSG	450-51	Nursing Process IV Lab	3
NSG	460	Interactions in Nursing Practice IV	3
NSG	490	Advanced Nursing Practicum	1
		TOTAL	12

Credit by Placement	26	
Nursing Concentration Credits	31	
Total Nursing Hours	57	(46%)

*NOTES

1. Courses numbered above 400 are taken with students in the generic baccalaureate program.

2. Registered nurses admitted to the RN ACCESS Program of the UNC-Wilmington School of Nursing are required to verify their previous nursing education and experience by achieving a satisfactory score on the National League for Nursing Mobility Profile II tests and a clinical verification examination. Schedules for test dates are available in the office of the Director, RN ACCESS Program. The Nursing Mobility Profile II consists of three tests:

a. Care of the Adult Client
b. Care of the Client during Childbearing/Care of the Child
c. Care of the Client with Mental Disorder

A fee is charged for these tests.

A total of 26 semester hours of placement credit will be awarded to registered nurses upon satisfactory completion of all examinations.

3. A part-time sequence is available for the RN ACCESS Program.

4. Additional information can be obtained from the Director, RN ACCESS Program, UNC-Wilmington, School of Nursing (919) 395-3723.

BACHELOR OF SCIENCE DEGREE

Nursing Course Descriptions

NSG 115. Introduction to Contemporary Nursing (1) Prerequisite: Sophomore status. Open to non-nursing majors with consent of instructor. An overview of the historical development of nursing with discussion of significant persons, issues and events. Nursing education alternatives, various roles of professional nurses in contemporary practice, basic legal/ethical issues, and criteria which differentiate professional practice are described. Introduces the conceptual framework of the UNCW baccalaureate nursing program. One hour each week.

NSG 200. Introduction to Nursing Assessment and Intervention I (2) Prerequisite: Admission to the School of Nursing. Corequisite: Nursing 200-51. An introduction to concepts and techniques of professional nursing practice. Includes concepts of nursing process, role, health, illness, communication, self-awareness, growth and development, responsibility and accountability, change, needs, client teaching, leadership, prevention, and nursing research. Selected basic nursing techniques associated with these concepts are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer session).

NSGL 200-51. Introduction to Nursing Assessment and Intervention I Laboratory (1) Prerequisite: Admission to the School of Nursing. Corequisite: Nursing 200. Provides the opportunity for clinical application of the introductory concepts and techniques of professional nursing practices which are taught in Nursing 200. Students apply these concepts with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer session).

NSG 250. Introduction to Nursing Assessment and Interventions II (2) Prerequisite: Nursing 200, 200-51 or Nursing 219. Corequisite: Nursing 250-51. An introduction to the concepts and techniques of health assessment including interviewing and history-taking, developmental assessment, psychosocial assessment, and physical assessment. Nursing process provides the major framework for focusing on assessment of individual adults and identifying opportunities for primary prevention. Assessment techniques are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer session).

NSGL 250-51. Introduction to Nursing Assessment and Interventions II Laboratory (1) Prerequisite: Nursing 200, 200-51 or Nursing 219. Corequisite: Nursing 250. Provides the opportunity for clinical application of introductory concepts and techniques of health assessment which are taught in Nursing 250. Assessments are performed with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer session).

NSG 300. Nursing Process I (5) Prerequisite: Nursing 115, 250, 250-51. Corequisite: Nursing 300-51. Focuses on utilization of the nursing process with families, incorporating communication patterns, family development and the professional nurse's role in primary prevention with families. Basic research finding are incorporated and additional nursing techniques are acquired. Beginning concepts of secondary prevention are introduced. Five hours each week.

NSGL 300-51. Nursing Process I Laboratory (3) Prerequisite: Nursing 115, 250, 250-51. Corequisite: Nursing 300. Provides the opportunity for clinical application of the concepts and techniques which are taught in Nursing 300. The nursing process is utilized with families in all phases of the life cycle, focusing on primary prevention. Selected secondary prevention related to screening in healthy populations is implemented. Twelve hours clinical laboratory each week.

NSG 310. Interactions in Nursing Practice I (3) Prerequisite: Nursing 250, 250-51. Prerequisite or Corequisite: Nursing 300, 300-51. Emphasizes elements of the teaching-learning process and related principles of change, decision-making, communication and assertiveness. Selected literature is reviewed, as a teaching project is implemented with a designated family. Three hours each week.

NSG 315. Nature of Man and Health in Modern Society (3) Prerequisite: Nursing 115, 250, 250-51. Establishes a foundation for the professional nursing role through an examination of selected historical events, legal and ethical frameworks for practice, standards for nursing, key issues in health care, current issues in nursing, nursing theories, and models of nursing care delivery. Three hours each week.

NSG 350. Nursing Process II (5) Prerequisite: Nursing 300, 300-51, 310, 315. Corequisite: Nursing 350-51. Focuses on utilization of the nursing process with families who have a member in an acute care setting. A foundation is developed for secondary prevention, including pathophysiology, psychopathology, relevant theories and research, and nursing roles and functions. Additional nursing techniques needed for secondary prevention are required. Five hours each week.

NSGL 350-51. Nursing Process II Laboratory (3) Prerequisite: Nursing 300, 300-51, 310, 315. Corequisite: Nursing 350. Provides the opportunity for clinical application of the concepts and techniques taught in Nursing 350. The nursing process is utilized with families who have a member in an acute care setting, focusing on secondary prevention. Twelve hours clinical laboratory each week.

NSG 360. Interactions in Nursing Practice II (3) Prerequisite: Nursing 310, 315. Corequisite: Nursing 350, 350-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership, and conflict resolution. A self-inventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed. Teaching-learning principles are applied with a group of clients. Three hours each week.

NSG 400. Nursing Process III (4) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400-51. Focuses on utilization of the nursing process with families who have a member in a critical care setting and development of a framework for more advanced secondary prevention. Beginning concepts of tertiary prevention are introduced and additional nursing techniques pertaining to advanced secondary prevention are acquired. Four hours each week.

NSGL 400-51. Nursing Process III Laboratory (3) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400. Provides the opportunity for clinical application of the advanced secondary prevention concepts and techniques which are taught in Nursing 400. The nursing process is utilized with families who have a member experiencing a life-threatening illness or crisis. Twelve hours clinical laboratory each week.

NSG 410. Interactions in Nursing Practice III (3) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400, 400-51. Prerequisite or Corequisite: Nursing 379, 389, 389-51. Emphasizes elements of community assessment and related principles of epidemiology, health planning, social and political change, environmental management, and levels of prevention. Community resources and data sources are incorporated into the implementation of an assessment for a selected community. Three hours each week.

NSG 415. Research in Nursing (3) Prerequisite: Statistics 210, Nursing 350, 350-51, 360. Prerequisite or Corequisite Nursing 379, 389, 389-51. Examines research process as applied to nursing. Research terminology, methodology, and applicability of research findings for clinical practice are emphasized. Computer uses and ethical decision-making are incorporated. Principles of research are applied in developing a preliminary proposal for a nursing research project of limited scope.

NSG 450. Nursing Process IV (5) Prerequisite: Nursing 400, 400-51, 410 or Nursing 389, 389-51, 410. Corequisite: Nursing 450-51, 460. Focuses on the utilization of the nursing process with individuals, families, and groups who have and groups who have complex health needs. A conceptual framework for clinical practice based on related beliefs, theories, and research is developed, and provides the foundation for the role of the nurse in tertiary prevention. Five hours each week.

NSGL 450-51. Nursing Process IV Laboratory (3) Prerequisite: Nursing 400, 400-51, 410 or Nursing 389, 389-51, 410. Corequisite: Nursing 450, 460. Provides the opportunity for the clinical application of concepts and techniques taught in Nursing 450 and Nursing 460. The nursing process is utilized with individuals, families, and groups who have complex health needs, and the students assumes responsibility for coordinating or directing the care of a group of clients. Twelve hours clinical laboratory each week.

NSG 460. Interaction in Nursing Practice IV (3) Prerequisite: Nursing 400, 400-51, 410 or Nursing 389, 389-51, 410. Corequisite: Nursing 450, 450-51. A seminar focusing on nursing leadership and management for the professional nurse. Included are: related concepts and theories of organization, change, power and authority, and role development; models of nursing care delivery; legal ramifications of delegation; models of quality assurance; computer applications in nursing management; and transitional issues for the graduate. Three hours each week.

NSG 490. Advanced Nursing Practicum (1) Prerequisite: Nursing 400, 400-51, 410, 415 or Nursing 389, 389-51, 410, 415. Provides the opportunity for clinical application of the nursing process to a selected area of nursing practice as the student integrates the concepts of research, prevention, and change into a clinical project. Emphasis on further development of nursing skills, knowledge and leadership, and establishing collegial relationships. Four hours clinical practicum each week.

NSG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing; consent of instructor; Nursing 300, 300-51, or Nursing 389, 389-51.

NSG 499. Honors Work in Nursing (2-3) Prerequisite: Eligibility for honors program; Nursing 300, 300-51 or Nursing 389, 389-51. Individual study for honors students.

Courses for Registered Nurses Only

NSG 219. Interactions in Contemporary Nursing I (3) Prerequisite: Admission to the RN ACCESS Program in the School of Nursing. An overview of fundamental concepts for professional nursing practice. Emphasizes nursing process, health, illness, communication, responsibility and accountability, leadership, prevention, change, decision-making and research in professional nursing practice. Introduces nursing theories and the conceptual framework of the UNCW baccalaureate Nursing Program. A teaching project is implemented with an individual client. Ten lecture hours per week (summer session)

NSG 379. Interactions in Contemporary Nursing II (1) Prerequisites: Nursing 219, 250 and 250-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership and conflict resolution. A self-inventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed. One hour each week.

NSG 389. Nursing Process in Contemporary Nursing (3) Prerequisites: Nursing 219, 250, and 250-51. Corequisite: Nursing 389-51. Focuses on utilization of the nursing process with families in all phases of the life cycle. Incorporates communication patterns, family development and prevention. A clinical framework is developed from relevant theories and research. Nursing roles of career provider, coordinator, client teacher and advocate are explored. Responsibility and accountability for interactions with families are emphasized as the need for change within family and health care delivery systems is identified. Three hours each week.

NSGL 389-51. Nursing Process in Contemporary Nursing Laboratory (3) Prerequisite: Nursing 219, 250, 250-51. Corequisite: Nursing 389. Provides the opportunity for clinical application of concepts and techniques taught in Nursing 389. The nursing process is utilized with families during all phases of the life cycle in community and acute care setting. Twelve hours clinical laboratory each week.

PROFESSIONAL PROGRAMS

MEDICAL TECHNOLOGY

Advisor: Ms. Kendrick

UNCW students interested in Medical Technology have two programs of study from which to choose.

1. A five-year program which includes earning a Bachelor's degree with a major in either Biology or Chemistry and completion of an additional year of training at an accredited hospital.

*2. A four-year program leading to a Bachelor of Science degree with a concentration in Medical Technology. The first six semester (90 semester hours) of this program are completed on campus with the final year (12 months) spent in training at an affiliated hospital. The affiliated hospitals are:

Bowman Gray School of Medicine/North Carolina Baptist Hospital, Winston-Salem, N.C.
Charlotte Memorial Hospital, Charlotte, N.C.
Forsyth Memorial Hospital, Winston-Salem, N.C.
Moses Cone Memorial Hospital, Greensboro, N.C.
New Hanover Memorial Hospital, Wilmington, N.C.
Presbyterian Hospital, Charlotte, N.C.

Upon successful completion of this four-year program, the student will receive the Bachelor of Science degree with a concentration in Medical Technology.

Completion of the first years of study at UNCW does not assure the student admission to the year of clinical training at a hospital. There is competition for the limited space available; therefore, application to the preferred hospital should be made early in the fall of the last year at UNCW. Such application is the responsibility of the student. Guidance by the faculty advisor should be sought, since entrance requirements may differ at various hospitals.

As a part of the admission process, some hospital facilities require that applicants take the Allied Health Professions Test. This test is given at specified institutions each year. See the advisor about time and place.

***Students majoring in Medical Technology must file and pay for graduation during the first semester of the junior year. This application is filed in the office of the Registrar.**

'he curriculum prescribed during the first three years at UNCW includes the following:
. Basic Studies requirements—45 semester hours.
2. Requirements for a concentration in Medical Technology for the BSMT degree:

BIO 108 Introduction to Medical Technology (1)
BIO 205 Introductory Biology: Plants (4)
BIO 206 Introductory Biology: Animals (4)
BIO 207 Introductory Biology: Cells (3)
BIO 341 Clinical Calculations (1)
BIO 345 Animal Physiology (4) or BIO 347 Cell Physiology (4) or BIO 240-241, Human Anatomy and Physiology (4-4)
BIO 371 Human Fungal Diseases (I) or BIO 477 Mycology (4)
BIO 425 Microbiology (4)
BIO 441 Introduction to Immunology (1)
CHM 101-102 General Chemistry (4-4)
CHM 211-212 Organic Chemistry (4-4)
MAT 111 Precalculus Mathematics (3) or MAT 115 Elementary Mathematical Analysis

Recommended elective courses:

BIO 235 Genetics in Human Affairs (3)
BIO 335 Genetics (4)
BIO 465 Biochemistry (3)
BIO 495 Seminar (in related areas) (1)
* CHM 235 Quantitative Analysis (4)
CHM 325 Physical Chemistry (4)
PHY 101-102 Elementary College Physics (4-4)
STT 215 Introduction to Statistics (3)
Computer Science Courses

*Very Highly recommended

hoice of elective course should be made jointly by the student and the Medical Technology dvisor.

During the Clinical training year at the affiliated hospital, the final 34 semester hours are arned from the courses listed below. Credit for these courses may not be counted toward ny other degree at The University of North Carolina at Wilmington.

Medical Technology Course Descriptions

T 401. Immunology-Serology (2) A study of the innate and adaptive immune response mechanisms in the body and the laboratory methods used to evaluate these responses. Special emphasis on serological techniques.

T 405. Hematology (8) A study of the formation, morphology, and functions of human blood cells, primary and secondary hematological diseases and clinical laboratory tests for diagnosing them; hemostasis and the evaluation of clotting disorders.

T 407. Immunohematology (4) A study of the clinical transfusion service, including collection and handling of donor blood and its components, blood typing, compatibility testing between donor and recipient blood and between maternal and fetal blood, and identification of factors responsible for incompatibilities.

MT 412. Clinical Microbiology (8) A study of the medically important bacteria, fungi, viruses, parasites, and associated infectious diseases; special emphasis on the study of appropriate clinical specimens for isolation and identification of microorganisms involved in the infectious process and on testing these isolates for antibiotic susceptibility.

MT 414. Clinical Microscopy (2) Chemical and microscopic study of urine and other body fluids in health and disease, microscopic analysis of urinary sediment, and study of renal physiology.

MT 420. Clinical Chemistry (8-10) Study of the biochemical analyses of blood and other body fluids to evaluate the enzymes, hormones, electrolytes, drugs, and other important chemicals in the body; use and maintenance of sophisticated instrumentation and quality control.

MT 490. Special Topics in the Clinical Laboratory Sciences (1-2)

NURSING

Advisors: Ms. Lowe, Ms. Stone, Dr. Gray (Registered Nurses only)

The University provides a four-year program leading to a Bachelor of Science degree with a concentration in nursing. Upon successful completion of the program and the recommendation of the faculty, graduates are eligible to write the licensure examination for registered nurses.

For further information on the Nursing Program, refer to the section of this catalog which describes School of Nursing programs, requirements, and course offerings.

THE TEACHER EDUCATION PROGRAM

The Teacher Education Program at The University of North Carolina at Wilmington stresses a broad education base, a sound subject matter preparation, and an appropriate emphasis on professional education to meet state certification requirements and to give the prospective teacher confidence.

All students who expect to follow the Teacher Education Program must be formally admitted into the program according to policy established by the University Council on Teacher Education. To be eligible for admission, students must have completed four semesters or two academic years of full time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale, have completed the University basic skills requirements in English and Mathematics and a Natural Science laboratory course with a grade of a least "C" in each course, have completed EDN 200, Teacher, School and Society, with a grade of "C" or better, and have passing scores on the teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

The University provides degree certification programs for elementary, middle grades, secondary, and special education teachers. For further information, refer to the section of this catalog which describes School of Education programs, requirements, and course offerings.

PRE-PROFESSIONAL PROGRAMS

PRE-AGRICULTURE AND PRE-FORESTRY

Pre-Agriculture Advisor: Dr. Sieren
Pre-Forestry Advisor: Dr. Sieren

Pre-professional programs in forestry and agriculture are arranged which enable students to transfer to schools offering professional training in the two fields. The programs are designed to meet the requirements and recommendations of the professional schools and students should plan their programs in consultation with the pre-agriculture or pre-forestry advisor.

ALLIED HEALTH

Advisors: In General College Advising Center

The allied health program provides a common curriculum during the freshman year for all students (Nursing excepted) interested in health-related careers, e.g., medicine, pharmacy, etc.

First Semester
ENG 101 Freshman Composition
MAT 111 Pre-Calculus Math (or higher, e.g., MAT 115 or 161)
CHM 101 General Chemistry
BIO 206 Animal Biology (or other Biology core course, e.g., BIO 205 or 207)
Basic Studies course

Second Semester
ENG 102 Freshman Composition
CHM 102 General Chemistry
BIO 205 Plant Biology (or other Biology core course)
Basic Studies coureses

PRE-ENGINEERING

Advisors: In General College Advising Center

The University offers courses in pre-engineering for students who may wish to transfer to a specialized engineering school after one or two years.

General Requirements: Mathematics 161 (students with insufficient background may begin with MAT 115 or even MAT 111), 162, 261, 361; Chemistry 101, 102; Computer Science 111 or 121 (see advisor); Engineering 111; Physics 201, 202; English 101, 102; Economics 221; plus Humanities and Social & Behavioral Sciences courses designed to meet graduation requirements at the university to which one is intending to transfer (see advisor).
Physical Education 101 (PED 102 is not required for graduation; however, four semesters of Physical Education are required to graduate from N.C. State University).

Specific Requirements:
Chemical Engineering: Chemistry 311, 312
Civil Engineering: Geology 101; Engineering 211, 212; Civil Engineering students should also consider Geography 320

Electrical Engineering: see advisor.

PRE-LAW

Advisor: Dr. James Dixon

Students who plan to prepare for law school may select a major in any discipline that fulfills the requirements for a baccalaureate degree at UNCW. In developing a Pre-Law program, the student should be aware of the recommendation of the Association of American Law Schools, which describes the basic skills and insights it believes fundamental to the later attainment of legal competence. These are (a) comprehension and expression in words; (b) critical understanding of human institutions and values with which the law deals; and (c) creative power in thinking. In order to develop these capacities, the association recommends a pre-legal education of "the broadest scope." To accomplish these goals The University of North Carolina at Wilmington offers a wide range of Pre-Law courses. Although Political Science and Business are frequently selected by Pre-Law students as their major, Economics, History, Sociology and others are sometimes selected. Regardless of the area of concentration, the Pre-Law student should be zealous in the selection of electives that will facilitate critical understanding of economic, political and social institutions. Since a lawyer must be able to communicate effectively, the Pre-Law student is well-advised to lay special emphasis on communicative skills. Also a knowledge of elementary accounting is highly recommended.

Finally, the Pre-Law student should remember that the quality of undergraduate instruction is more important than the subject matter area. The Association of American Law Schools recommends the selection of courses which require the greatest preparation and intellectual discipline. "The best trained applicant for law school," states the Association, "is the student who has studied under teachers who have inspired, challenged, and pressed him."

All candidates for law school should apply in time to insure that their completed file is available by January 1 of the year they plan to enter. This means that they should register for either the June or October administration of the Law School Admissions Test and for the Law School Data Assembly Service. The LSAT and the LSDAS are explained fully in the Law School Admission Bulletin which is available in the Department of Political Science. Additional information and advice may be secured from the Pre-Law advisor in the Department of Political Science.

PRE-MEDICINE, PRE-DENTISTRY, AND PRE-OPTOMETRY

Advisor: Dr. Ned H. Martin

The University of North Carolina at Wilmington offers an excellent opportunity to students desiring preprofessional training in dentistry, medicine, or optometry. Although specific requirements may vary among various schools, all emphasize core courses in biology, chemistry, mathematics, and physics. These courses could be incorporated in almost any major, and students should give consideration to a major which they find interesting and in which they feel confident. Students majoring in the natural sciences should have a broad

background in the humanities and social sciences areas. Most medical and dental schools recommend that students receive a bachelor's degree (B.A. or B.S.) before admission. While planning their curriculum, students should keep in mind the graduation requirements which include a total of 124 credit hours, the basic studies requirements, and the requirements of their chosen area of concentration. Pre-medicine, pre-dentistry, and pre-optometry are not majors; however, there are B.A. degree programs in Biological Sciences, in Chemistry, and in Physics with an emphasis in the pre-medical sciences.

In addition to the required core courses, almost all medical schools require taking the Medical College Admission Test (MCAT), dental schools require taking the Dental Admission Test (DAT), and optometry schools require taking the Optometry Admission Test (OAT) prior to consideration for admission. Scores on these tests constitute an important part of the admission criteria. Students usually take these tests during their junior or early senior year.

High academic achievements should be coupled with extracurricular activities as most professional schools prefer students who are well-rounded.

Required Courses

The following courses fulfill the minimum requirements of a large number of medical and dental schools.

General Chemistry (CHM 101-102 with labs)
Organic Chemistry (CHM 211-212 with labs)
Quantitative Analysis (CHM 235 with lab)
Animal Biology (BIO 206)
Cell Biology (BIO 207)
Comparative Vertebrate Anatomy (BIO 315)
Physics (PHY 101-102 or 201-202)
Precalculus Mathematics (MAT 111-112 or 115)

Additional Recommended Courses

Calculus (MAT 161-162)
Biochemistry (BIO 465 or CHM 465)
Medicinal Chemistry (CHM 417)
Animal Physiology (BIO 345)
Advanced Organic Chemistry (CHM 415)
Vertebrate Embryology (BIO 316)
Genetics (BIO 335 or 235)
Physical Chemistry (CHM 325 or 321-322)
Cell Physiology (BIO 347)
Microbiology (BIO 425)

The pre-medical advisor helps students with curricular planning, academic progress, preparation for admission tests, and with application for admission to professional schools. The Premedical Sciences Advisory Committee composes a consensus evaluation of each applicant to medical science profession schools. Students interested in a career in the health sciences should consult the advisor for additional information as early as possible in their academic programs.

PRE-PHARMACY

Advisor: Dr. Sayed

Students interested in careers in Pharmacy should consult with the Pre-Pharmacy advisor before arranging their academic schedules. Basic coursework in Biology, Chemistry, Physics, and Mathematics is required, as well as additional studies in the Social Sciences and Humanities in the two-year Pre-Pharmacy program. Students should arrange through their advisor to take the Pharmacy College Admission Test (PCAT) in November of their second year. Applications to pharmacy schools should be made in the fall or winter of the second year.

PRE-PHYSICAL THERAPY

Advisor: Dr. Stokes

The University offers courses in pre-physical therapy for students who wish to apply to a specialized physical therapy program. The program of study outlined below is designed to meet minimum requirements at UNC-Chapel Hill.
General Requirements: Foreign Language through 201; English 101 and 102; Mathematics 115 and Statistics 215 or Mathematics 161; Chemistry 101 and 102 with labs; Biology 105 or 206 and 240 with labs; Physics 101 with lab; two courses in Social Science; one course in Philosophy; one course in Literature; one course in Fine Arts; two courses in History; Psychology 105; three elective courses; two Physical Education activities courses.

All the above courses must be completed by the end of the spring semester prior to fall entrance, except one elective which may be taken during the first session of summer school. For application requirements to the University of North Carolina at Chapel Hill or to East Carolina University, see advisor.

PRE-VETERINARY MEDICINE

Advisor: Dr. Ballard

The student interested in applying to a school of veterinary medicine may complete basic requirements for admission at The University of North Carolina at Wilmington. Specialized courses not offered at this institution must be taken elsewhere. The only school of veterinary medicine in North Carolina is located at North Carolina State University in Raleigh.

Students planning to pursue a career in veterinary medicine should consult with the advisor to plan the program of study.

SPECIAL PROGRAMS

MARINE SCIENCES

Marine Science activity at The University of North Carolina at Wilmington consists of instructional and research programs on the University's main campus as well as specialized research activities associated with its Center for Marine Science Research at Wrightsville Beach.

The programs in Marine sciences on the University's main campus consist of a Marine Biology curriculum leading to the B.S. degree, a Marine Biology curriculum leading to the M.S. degree, and a Faculty Marine Science Research Program.

MARINE BIOLOGY CURRICULUM

The UNCW Marine Biology curriculum is a unique baccalaureate program in the University system. It includes a strong foundation of Biology with an emphasis in Marine Biology at the junior and senior levels. Full use is made of the natural laboratory provided by the adjacent Atlantic Ocean through extensive field work in many Marine Biology courses. Approved collateral requirements include marine-oriented courses in Mathematics, Physics, Chemistry and the Earth Sciences. The curriculum is flexible enough to meet the individual needs of the student enabling preparation for graduate studies or for teaching and research careers available to one with the baccalaureate degree. Requirements for the B.S. degree in Marine Biology are listed under Biological Sciences in the Degree Program Requirements section of this catalogue.

MARINE BIOLOGY GRADUATE PROGRAM

The graduate program leading to the Master of Science degree in Marine Biology includes three areas of specialization: Marine Biology, Biological Oceanography, and Coastal Biology. Each of these tracks is designed to provide the necessary latitude to allow students to develop programs of study appropriate to their needs. Further information is given in the Graduate School section.

MARINE SCIENCE RESEARCH PROGRAM

The Marine Science Research Program has many active participants with research interests covering areas of Marine Biology, Physical and Chemical Oceanography, Marine Geology and Marine Biogeography. There are two categories of participants in the program: those who hold research positions and those who hold regular teaching positions but who are also engaged in Marine Science research. All participants are involved in the Marine Science instructional program.

CENTER FOR MARINE SCIENCE RESEARCH

The Center for Marine Science Research constitutes a major component of the overall Marine Science development effort at UNCW and has the dual mission of conducting research programs of the highest quality and utilizing these programs as an instrument in the education of students.

The Center's scientific program focuses on three related areas. Experimental Biology addresses itself to broad problems of adaptation and acclimatization of animal life at all levels of development to the environmental stresses characteristic of the marine environment. Biomedical studies are concerned with ion transport and calcification in marine organisms and other vertebrates and regulatory processes such as hormonal and temperature regulation in marine invertebrates. The Experimental Oceanology program covers a broad range of efforts related to the ocean environment, using the ocean as a laboratory in which the methods of experimental science can be applied to the solution of problems related to management, conservation, and development of marine life.

Supporting the Center's research program are a series of specialized facilities, including the complex of deep-sea simulators capable of simulating ocean depths of 30,000 feet, a biochemistry laboratory, histology laboratory, a photographic laboratory, and electronic and machine shops.

ENVIRONMENTAL STUDIES CURRICULUM

The Environmental Studies curriculum emphasizes the importance of multidisciplinary approaches in the study of environmental problems, particularly those dealing with the marine environment. The curriculum exposes students to a broad range of analytical procedures in the natural and social sciences, including an environmental impact seminar, and an area of specialization consisting of course work within approved disciplines. Those who wish to emphasize Marine Science may do so by electing an approved sequence of courses in Marine Science. Other available concentrations include: Biology, Chemistry, Earth Sciences, Economics, Mathematics, Physics, Political Science, Psychology, Sociology and Anthropology. Requirements for the B.A. degree in Environmental Studies are listed in the Degree Program Requirements section of this catalogue.

FIELD EXPERIENCE IN BIOLOGY

The Department of Biological Sciences offers a summer field experience in various biological disciplines at selected areas within and outside the continental United States. Participating students may conduct individual or group research, with faculty guidance, on both marine and terrestrial organisms. Research already has been conducted in such places as the Florida Keys, the Bahamas, and parts of Central and South America.

ARMY ROTC

The Army Reserve Officer's Training Corps at The University of North Carolina at Wilmington provides men and women, who meet the physical and mental requirements, the opportunity to become officers in the U.S. Army on active duty or in the Army National Guard or U.S. Army Reserve.

Current undergraduate, graduate, and transfer students are eligible. All college disciplines are accepted. Students may enter the program at almost any time during their study at UNCW. The four programs offered include the Scholarship Program, the Four-Year and Two-Year Programs, and the Simultaneous Membership Program with the Army National Guard or Reserves.

SUMMER SESSIONS

The Summer Sessions constitute an integral part of the University's academic year. Students may take advantage of several unique programs related to the marine environment and other interesting subject areas. A variety of courses is offered for students who wish to accelerate their progress toward the baccalaureate degree, to supplement the academic load carried during the regular terms, or to removed deficiencies. During the summer sessions, undergraduate students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. In addition, public school teachers may wish to renew or change fields of certification or pursue a program of graduate studies in the School of Education.

Further information concerning the Summer Sessions may be obtained by contacting the Director of Summer Sessions.

OFFICE OF SPECIAL PROGRAMS

The Office of Special Programs plays a major role in fulfilling the UNC system's goal to make its resources and expertise available to the public through community services, consulting and technical assistance. It's mission centers on a "service" concept and programs are designed to cater to the needs of the community and state. These vary and are outlined under the headings of public service, conference hosting, and extension.

PUBLIC SERVICE PROGRAMS

Public service programs are presented to raise awareness of events that affect daily life or contribute to personal enrichment. These non-academic activities include guest speakers, discussion groups, short courses, workshops and conferences covering topics ranging from local problems to international affairs.

A variety of short courses, conferences, and workshops are also specifically designed for businesses, industries and professionals. University faculty and other qualified individuals conduct programs in communications, management, planning, supervision, small business administration or other similar topics. Faculty from the Cameron School of Business Administration conduct an annual series of professional development courses in business as well as a comprehensive series designed specifically for certified public accountants.

The University also assists school systems with programs and courses for professional improvement of teachers. Courses are designed to meet certification and renewal requirements and/or provide general training for teachers and administrators.

As another dimension of public service, the Office of Special Programs also assists community groups with scheduling university facilities for meetings, seminars and other programs.

CONFERENCE HOSTING

Because the University is vitally interested in assisting both the general public and organizations, the Office of Special Programs provides conference hosting for a wide variety of groups whose mission coincides with the UNC system. Comprehensive services are "tailor-made" according to the needs of each group and can encompass meeting space, housing accommodations, food services, registrations or billing. These conferences, for groups ranging from 20 to 600 persons, can be for credit or non-credit, meeting for one day or many weeks. Special emphasis is given to recruiting non-profit groups with training/education purposes.

EXTENSION COURSES

University extension (academic) courses are offered on the freshman and sophomore levels at Bladen Community College in Dublin and Sampson Community College in Clinton, North Carolina. The community colleges recruit and enroll students who are high school graduates or the equivalent. Students enrolled in the program who wish to become degree candidates at the University must apply and meet regular admission requirements for freshmen or transfer students.

Additional extension offerings also include undergraduate and graduate courses in the field of education at off-campus sites. Utilizing faculty from the School of Education, these courses meet the staff development and/or graduate education requirements of local teachers.

Extension registrations are received by the Office of Special Programs while requests for transcripts should be sent to the Registrar of The University of North Carolina at Wilmington.

Further information concerning all programs may be obtained by contacting the Director of Special Programs.

SCIENCE AND MATHEMATICS EDUCATION CENTER

The Science and Mathematics Education Center at UNCW is a member of the University of North Carolina Mathematics and Science Education Network. The Center offers a wide range of professional development programs for inservice middle school and high school mathematics and science teachers. Through Center sponsored seminars, workshops, and courses, teachers can achieve initial certification in science or mathematics, renew existing certificates, or earn credit toward a graduate degree.

Information concerning upcoming programs may be obtained by contacting the Director of the Science and Mathematics Education Center.

GRADUATE STUDIES

THE GRADUATE SCHOOL

Eric G. Bolen, Dean

The Graduate School at The University of North Carolina at Wilmington administers programs of study leading to the Master of Business Administration degree, the Master of Education degree, the Master of Arts in Teaching degree, the Master of Science degree in Biology, Chemistry, Geology, Mathematics, and Marine Biology, and the Master of Arts degree in English, History, and Mathematics.

Each of these programs provides capable students with an opportunity to pursue advanced study, training, and research designed to enhance their academic and professional development. Fuller descriptions of these programs appear separately in the following pages.

ADMISSIONS: MASTER'S DEGREE PROGRAM

General Admissions Requirements

For admission to a graduate degree program at The University of North Carolina at Wilmington, the applicant must (1) hold a bachelor's degree from an accredited college or university in this country or its equivalent in a foreign institution based on a four-year program; (2) have a strong overall academic record with a B average or better in the basic courses prerequisite to the area of proposed graduate study; and (3) present satisfactory scores on the specified examination. For information on the Graduate Record Examination (GRE), Graduate Management Admission Test (GMAT), or the Miller Analogies Test (MAT) contact the University Student Development Center. (Test scores more than five years old at the time of application will not be considered.) In addition, students who are taking or have taken graduate work elsewhere must be in good standing at that institution to be eligible to take graduate work at UNCW.

Applications for admission to most graduate degree programs should be filed in the Graduate School Office at least sixty (60) days in advance of the term in which admission is sought; some programs require earlier deadlines. If admitted applicants do not register for the term specified in this application, their admission will be subject to review at a later date. A student who leaves the University and does not register for at least one semester must apply for readmission to the Graduate School.

Each student admitted to a graduate degree program must have a completed medical report form on file at UNCW before initial registration may be effective. In addition, an immunization record for each newly admitted UNCW graduate student, regardless of status, is required by law to be on file at UNCW prior to enrollment.

Graduate students are subject to the same University policies and regulations as undergraduates unless otherwise stated.

Specific admission requirements are listed under each master's degree program.

Non-degree Students

In some cases, students who are not seeking a graduate degree may be permitted to take graduate courses. Such permission to take graduate courses does not constitute admission to a graduate degree program. Non-degree students are not candidates for degrees. Enrollment must be maintained in at least one graduate course each semester. Non-degree graduate students are expected to meet the same admission standards that apply to graduate students accepted in a degree program. Students that are later accepted to a degree program may, with approval, have up to 10 hours applied toward the degree. Normally, non-degree

status is not available and does not apply to students interested in taking courses in the Cameron School of Business Administration. Any individual having an interest in applying for admission as a Non-degree Graduate Student should contact the Dean of the Graduate School.

ADMISSIONS - INTERNATIONAL STUDENTS

International students must present evidence of their ability to speak, read, and write the English language and to meet fully the financial obligations associated with their study at the University. Students from foreign countries where English is not the primary language must present the results of the TOEFL examination (Test of English as a Foreign Language) as a part of their application for admission. A minimum score of 550 is required for admission to all programs, but this score does not in any way guarantee acceptance. A financial responsibility statement and proof of accident and hospital insurance must also be submitted.

Application forms and other admissions information may be obtained by writing to The Graduate School, The University of North Carolina at Wilmington, 601 South College Road, Wilmington, North Carolina 28403-3297.

EXPENSES

The Board of Governors of The University reserves the right to change the charges for tuition, fees and the room and board rate at any time without prior notice.

Tuition and Fees (In effect at time of publication)

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

Full Time Charges Per Semester:

	In-State Students	Out-of-State Students
Tuition	$216.00	$2,135.00
Fees	260.50	260.50
Total	$476.50	$2,395.50

Other Fees:

Application Fee (to accompany application, nonrefundable)	$15.00
Transcript Fee	1.00
Graduation Fee	27.00

Certain courses have additional fees which increase the semester charges shown above. These fee courses are indicated in the course schedule for each semester.

Graduate students registering for nine or more semester hours will be charged at the full-time rate as shown above. Students scheduling fewer than nine semester hours will pay tuition and fees as follows:

Semester Hours	In-State Students	Out-of-State Students*
0-Thesis only	$131.50	$ 371.50
1-2	$ 86.50	$ 566.50
3-5	$140.50	$1,100.50
6-8	$207.00	$1,646.00

The privileges of students taking fewer than nine hours per semester will be restricted to class attendance and use of the library; however, by paying a Special Use Fee of $18.00 per semester, these students will be entitled to use all physical education facilities which are available to full-time students.

*See information on residency at the end of this section.

No degree, diploma, transcript of credit, or grades will be furnished a student until all financial obligations to the University, other than student loans, have been paid. All previously incurred expenses and accounts at the University must be paid in full prior to preregistration or registration for a new term.

On-Campus Living

Two meal plans are available for residence hall students. The rates per semester are as follows:

Room and Board:	15 meals	$1,353.00
Room and Board:	21 meals	$1,378.00

Three meal plans are available for apartment students and students living in Residence Hall 89 suites. The rates per semester are as follows:

Apartment and Board:	10 meals	$1,453.00
Residence Hall 89 and Board:	10 meals	$1,503.00
Apartment and Board:	15 meals	$1,478.00
Residence Hall 89 and Board:	15 meals	$1,528.00
Apartment and Board:	21 meals	$1,503.00
Residence Hall 89 and Board:	21 meals	$1,553.00

The University reserves the right to change the on-campus living rate at any time without prior notice.

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

An advance room reservation deposit of $100.00 to be applied to the room and board account must be remitted by each applicant along with the complete application for room and board.

Those interested in obtaining information should contact:
Housing Office
The University of North Carolina at Wilmington
601 South College Road
Wilmington, North Carolina 28403-3297

Summer Session

Summer session tuition, fees, refund policy, and room and board rates will be announced n the Summer Session Bulletin.

Refunds Tuition

A student who officially withdraws from the University on or before the last day of the egistration (Drop/Add) period will receive a refund of the amount paid. Students withdrawing rom the University after the Drop/Add period will be charged 10% of all semester charges for each week of classes that have been held that semester. This weekly charge begins with the irst day of scheduled classes regardless of the actual date of enrollment.

No refunds will be made for withdrawals after the end of the ninth week of scheduled classes.

This refund policy applies to complete withdrawals from UNCW. If you simply reduce your course load after the Drop/Add period, you will receive NO refund reduction of fees whatsoever.

Refunds Financial Aid

Students who receive financial aid are not given refunds on financial aid received when charges are prorated due to withdrawal.

Refunds Housing

Housing agreements are effective for the full academic year. Agreements made subsequent to the beginning of the fall semester remain in effect until the close of the spring semester. Housing deposit and charges will not be refunded except as provided for below:

1. New Students (incoming Freshmen and Transfers). If a new student, after remitting the deposit and being accepted to on-campus housing, decides not to live on campus and gives notice of this decision in writing by May 15, 1989, in the case of application for the fall semester, or at least one month prior to the semester in the case of application for the spring semester, the deposit shall be refunded, less a $25.00 administrative charge. Requests for refund received after May 15, 1989, will be denied and the $100.00 deposit forfeited. This condition also applies to students remitting the deposit and accepted to on-campus housing after May 15, 1989.
2. Returning Students (Students currently or previously enrolled at UNCW). The $100.00 housing deposit is non-refundable to returning students after being accepted to on-campus housing (exceptions being marriage, transferring to another institution or withdrawal from UNCW less $25.00 administrative fee). Notification must be received in the Housing Office, in writing, by May 15, 1989.
3. Room rent for either semester will not be refunded once a student officially moves into a residence hall/apartment.
4. A pro rata refund of dining charges will be made to students who officially withdraw from the University.

Residence Status for Tuition Payment

The basis for determining the appropriate tuition charge rests upon whether a student is a resident or a nonresident for tuition purposes. Each student must make a statement as to the length of his or her residence in North Carolina, with assessment by the institution of that statement to be conditioned by the statement beginning on page 30 of this catalogue.

The initial classification of graduate students as in-state or out-of-state residents for tuition purposes is made by the Graduate School Office. Appeals for in-state status may be made to the campus appeals body, Out-of State Tuition Appeals Committee. University regulations governing residential classification of students are set forth in detail in "A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." Each enrolled student is responsible for knowing the contents of this manual. Copies of the manual are available in the undergraduate Admissions Office and in the Student Affairs Office for inspection upon request.

FINANCIAL AID FOR GRADUATE STUDENTS

MINORITY PRESENCE GRANT PROGRAM

Under the Board of Governors general Minority Presence Grant Program, black students may be eligible for special financial assistance if they are residents of North Carolina, enrolled for at least three hours of degree-credit coursework,and demonstrate financial need.

ASSISTANTSHIPS

Teaching and Research Assistantships are available on a limited basis through the departments of Biological Sciences, Chemistry, Earth Sciences, English, History and Mathematics. The admission application process determines candidates.

Graduate Assistantships are available on a limited basis through the Cameron School of Business Administration and the School of Education. For information contact the Dean of the appropriate school.

FELLOWSHIPS AND SCHOLARSHIPS

The Sylvia and B.D. Schwartz Graduate Fellowship Award may be awarded to any graduate student enrolled at UNCW. Recipients shall be determined by the Graduate School and will receive an amount equal to in-state tuition and fees.

The Zonta Scholarship is awarded annually to a UNC Wilmington female student of junior or senior standing, or a female graduate student enrolled in an approved program. She should be enrolled at least half time and have an overall grade point average of 3.0, have leadership potential, be of high ethical standards, and show promise in her chosen profession.

LOANS/COLLEGE WORK STUDY PROGRAM

Students who are enrolled at least half-time in the Graduate School at UNCW may apply for the following types of financial aid:

Guaranteed Student Loan Program provides loans to graduate students who qualify on the basis of financial need. Applicants complete the regular financial aid application process in addition to completing a loan application. Students may borrow up to $7,500 per academic year for five years. Repayment begins six months after the student ceases to be enrolled at least half time. The interest rate is calculated at eight percent for the first four years of repayment but escalates to 10 percent during the fifth year of repayment. Borrowers may be

given up to 10 years to repay their loans.

Supplemental loans for students provide funds to cover their college expenses in addition to those borrowed under the Guaranteed Loan program. These loans are available to independent graduate students who meet federal eligibility requirements, and attend school at least half time. In determining eligibility, the credit worthiness of the borrower is of primary importance. Students may borrow up to $4,000 per year for a cumulative total of $20,000. However, no student may borrow more than his cost of education minus other aid received. Repayment begins immediately with the first installment due 60 days after receipt of your money. A variable interest rate will be calculated annually based on a federal formula but cannot exceed 12 percent.

Parent Loans for graduate students may be secured by the parent to assist in covering educational costs. Parents may borrow up to $4,000 per year for a combined total of $20,000. However, a parent may not borrow any amount that would make the total amount of financial assistance that both the student and the parent receive greater than the cost of attendance at UNC Wilmington. In determining eligibility, credit worthiness of the borrower is of primary importance. A variable interest rate will be calculated annually based on a federal formula. The new rate will begin each year but cannot exceed 12 percent.

The College Work-Study Program, which is federally funded, provides part-time jobs on the UNCW campus for students who have financial need and who must earn part of their educational expenses. To be eligible for work-study, a student must be enrolled for at least half-time and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need.

For additional information, contact the Financial Aid Office.

VA Educational Benefits

Veterans and dependents are urged to utilize their VA Educational Benefits while enrolled in the graduate programs at the University. The available benefits are determined by the amount of eligibility time a veteran or dependent has remaining and the delimiting date that is involved.

For further assistance, contact the Veterans Coordinator in the Student Financial Aid Office.

ACADEMIC REGULATIONS AND PROCEDURES

Registration

No minimum number of hours is required for official registration; however, specified maximum course loads must not be exceeded. Students in graduate programs are permitted to register for no more than 15 hours in any one semester. Course loads for students who have service appointments will be determined on an individual basis. A student enrolled in the summer may not register for, and will not receive credit for, more than 6 hours a term.

Course Credit

Courses Eligible for Degree Credit

For courses offered at this institution, graduate course credit may be received only for courses taken after a student has been formally admitted to the Graduate School, except as described in the paragraphs below.

Final semester seniors at this institution with at least a B average in the major who need fewer than 15 hours to complete requirements for the bachelor's degree may take one or two graduate courses for the purpose of later receiving graduate credit, provided that they are not enrolled for more than a total of 15 hours. To do this the student must (1) obtain permission

in advance from his or her department chairman or school dean as appropriate, and (2) present it to the dean of the Graduate School for approval. Graduate courses taken under this provision may not be used in fulfilling baccalaureate degree requirements. Undergraduate students at other institutions who have taken graduate course work under similar arrangements may not transfer such work here.

Graduate courses taken at this institution before formal admission to graduate studies will meet course requirements for a graduate degree only if offered and approved as transfer credit. A maximum of 10 hours may be applied toward the degree.

Degree-related extension courses offered at this institution may be applied toward a graduate degree as follows: (a) with the approval of the appropriate dean, a non-degree student may apply for a maximum of 6 hours of relevant courses as transfer credits at the time of admission to a program, (b) with the prior approval of the appropriate dean, a student who is already admitted to a degree program may apply up to 6 hours of relevant courses toward the residence requirement. Requests for application of an additional 6 hours toward the residence requirement may be submitted to the dean of the Graduate School.

Transfer of Course Credit

A maximum of 6 semester hours of graduate credit may be transferred from another accredited institution, in partial fulfillment of the total hours required for the master's degree. Correspondence courses will not be accepted for transfer credit. When special circumstances warrant, students may petition the Graduate School for transfer of more than 6 semester hours. Each such petition must be accompanied by a statement of endorsement from the appropriate Dean.

Grades earned on transferred work must be equivalent to B or better. Transferred credit will be accepted by the dean of the Graduate School only upon recommendation of the dean of the school or college in which the student is enrolled. The Graduate School must have an official transcript showing the satisfactory completion of courses offered for transfer credit. The courses must have been taken within the allowed time limits for the degree. Transfer of credit does not reduce minimum residence requirements for a master's degree.

A graduate student who wishes to take one or more courses elsewhere for graduate degree credit must obtain prior approval from the appropriate dean and the dean of the Graduate School.

Courses Approved for Undergraduate Credit Only

Courses approved for undergraduate credit only may not become a part of the graduate program and do not carry either course or residence credit.

A graduate student who is required to take undergraduate courses, whether as a requisite for admission or for other reasons, or who takes such courses in the field of his or her graduate major, must make grades of at least B on all such courses in order to maintain eligibility as a graduate student.

A graduate student voluntarily electing to register for undergraduate courses may make any grade above F without jeopardy to his or her graduate standing, but all such courses are recorded as part of the official record.

Adding, Dropping, Withdrawing

Courses may be added only in the official Drop/Add period, which is noted in the Calendar of Events. To add a course, the student must present to the Registrar a Drop/Add Card signed by his or her graduate coordinator/advisor and the course instructor.

Every course for which a student is registered must be either completed or formally dropped; however, no course may be dropped in the last five weeks in a semester or during the last week of summer session.

To drop a course, the student must obtain a Schedule Revision Card from his or her advisor. f the advisor approves, the student must obtain the instructor's signature and indication of whether the student is passing or failing the course. The Schedule Revision Card must then be presented to the Registrar for approval.

If, at the time a student drops a course, performance in that course is judged by the instructor o be passing, a grade of WP is assigned on the student's permanent record; however, if the student is judged by the instructor to be failing, a grade of F is assigned on the student's permanent record, and the student becomes ineligible for further registration.

A student may not use a Schedule Revision Card to drop his or her only course but must officially withdraw from the University. To withdraw officially from the University, a student must come to the office of the dean of the Graduate School and complete a permit to withdraw.

Graduate Grading

Grades for graduate students enrolled in graduate courses must be reported as one of he following:

H — clear excellence
P —entirely satisfactory
L — low passing
F — fail
S — satisfactory progress on thesis
I — work incomplete
WP — withdraw passing

A student receiving grades of L on any three courses or on 12 semester hours (whichever comes first) or any grade of F is ineligible to continue in graduate studies.

When special circumstances warrant, students declared ineligible under the preceding paragraph may be reinstated upon petition by the student to the dean of the Graduate School. Each such petition must be accompanied by a statement of endorsement or nonendorsement rom the dean of the school or college in which the student is enrolled. Any reinstatement is provisional in that an additional grade below P will again result in the student's ineligibility.

An incomplete grade may be given if the course instructor determines that exceptional circumstances warrant extending the time for the student to complete the course work. The nstructor may set the maximum allowable period for completion of the course work, but in no case will extension exceed one year. If the time allowed is to be less than one year, this nformation should be transmitted in writing to the student, with a copy to the dean of the Graduate School. If within 12 months a grade change request has not been submitted by the nstructor, the incomplete automatically becomes an F.

Grades of H, P, L, S, F, and WP are permanent grades and can be changed only by the dean f the Graduate School in cases of arithmetical or clerical error or as a result of protest of grade.

Procedure for Protest of Grade

Any student who protests a course grade shall first attempt to resolve the matter with the nstructor involved. Failing to reach a satisfactory resolution, the student may appeal the rade in accordance with the procedures outlined below. Such appeal must be made not later han the last day of the next regular semester.

The student shall present the appeal in writing to the dean of the college or school within which the protested grade was awarded. By conferring with the student and the instructor, the ean will seek resolution by mutual agreement. Failing such resolution, the dean will transmit he written appeal to the dean of the Graduate School. The dean of the Graduate School will onvene the Grade Appeals Committee.

The Grade Appeals Committee will consist of the graduate dean as chairman and five nembers of the graduate faculty appointed by the graduate dean. If the committee affirms the nstructor's decision, the graduate dean will notify in writing the faculty member, the student, nd the appropriate dean. If the committee supports the student's appeal, it shall prescribe

prescribe the method by which the student will be reevaluated. If the reevaluation results in a grade change, the established Course Grade Change procedure will be followed. The grade resulting from the reevaluation is final and may not be further appealed.

Residence Credit Computation

Conversion of semester hours to residence credit is on the following basis:

1. 9 or more semester hours in a given semester earn a full semester of residence.
2. 6 to 8 semester hours earn one-half semester of residence.
3. 3 to 5 semester hours earn one-fourth semester of residence.
4. Credits earned in any summer session count towards residence credit on the same basis as courses taken in regular semesters.

Master's Degree Examination

Every master's candidate must pass either a written comprehensive examination covering his or her field of study, or an oral comprehensive examination covering all course work required for the degree, or both, according to the decision of his or her department or school. Neither examination may be taken until the course work is completed or until the final courses are in progress and must be scheduled in conformance with the deadline established by the dean of the school or college in which the student is enrolled. If a thesis is required, a final oral defense of the thesis may be required in addition to the comprehensive examination, or as part of the oral examination.

A committee of at least three members of the graduate faculty (at least two of whom must be in the major program) evaluates the student's work for the master's degree, approves any thesis required, and administers any oral examination that may be given. If the student has a minor field of study, at least one member of the student's committee must represent the program of the minor.

A master's candidate who fails either a comprehensive written or oral examination may not take the examination a second time until at least three months have elapsed. No student may take an examination a third time without approval of the dean of the Graduate School. A student passes an examination only on approval by at least two-thirds of the members of the examining committee. The vote of the examining committee is considered to be final.

Registration for Thesis

Every student required to write a master's thesis must register for a minimum of 3 hours of thesis credit. A maximum of 6 credit hours for the thesis may be used toward course requirements for the master's degree. During each term that a student is working on a thesis, he or she should register for as many hours as are academically appropriate, except that, if the required hours of thesis credit have been taken, the student may register for zero credit hours so long as this is the only courses for which he or she is registered.

Any student engaged in thesis research and/or writing that involves the use of University faculty or facilities must be registered during the semester or summer session in which he or she is using faculty time or facilities, whether the student is in residence or not. This registration may be for zero credit hours if the student had registered previously for the required number of semester hours of thesis credit. Provided that no use of University faculty and/or facilities is required, a student need not be registered in the semester in which the degree is to be awarded.

Foreign Language Requirement

Foreign language requirements differ from one graduate degree program to another. At an early stage, a graduate student should consult his or her graduate program advisor concerning

hat foreign language, if any, will be required. The requirement for a student in a given rogram must be one of the options approved for that program by the Graduate School.

Each department or curriculum shall determine when a graduate student must fulfill a reign language requirement, provided that such a requirement be satisfied before a student admitted to candidacy. At the time a student requests admission to candidacy, his or her ean will be asked to certify on the application of candidacy that such a requirement has been et.

pplication for Admission to Candidacy and for the Degree

A student in a master's degree program applies for admission to candidacy at the time of plication for the degree. To be eligible for graduation each student must apply for a specific raduation on or before the deadline shown in the Calendar of Events.

If a student has already applied for candidacy and for the degree but fails to meet a deadline r a particular graduation, he or she must reapply for the degree, specifying a new graduation ate.

egree Time Limits

A graduate student has five calendar years from the date of first registration in the graduate rogram to complete the master's degree. Courses transferred from other graduate schools r application toward degree requirements must have been taken within the specified time mits for that degree.

When extenuating circumstances warrant, an extension of the degree time limit may be anted a student upon his or her petition to the dean of the Graduate School.

HE COLLEGE OF ARTS AND SCIENCES

Graduate programs in the College of Arts and Sciences lead to either a Master of Arts or a aster of Science degree. In addition, specialized curricula are offered jointly by the College Arts and Sciences and the School of Education for professional educators leading to the aster of Arts in Teaching degree. All programs in the College are designed to enhance the ellectual ability, maturity, and independence of the Masters level student, thereby preparing udents for careers in business, industry, government, teaching, or for further study at the ctoral level.

ASTER OF SCIENCE IN BIOLOGY AND MARINE BIOLOGY

DEPARTMENT OF BIOLOGICAL SCIENCES

The Department of Biological Sciences offers programs of study leading to a Master of ience degree in Biology and a Master of Science degree in Marine Biology: The programs e designed either (1) to prepare students for further graduate work leading to the Ph.D.; (2) provide professional biologists with advanced research and education opportunities; (3) to epare students as managers of coastal and marine resources, trained to deal with ntemporary problems in the environment; (4) to provide students with a broadly-based aduate program allowing for specialization in the diverse fields of inquiry represented by the culty of the department; or (5) to provide increased avenues for secondary school teachers pursue graduate studies including a teacher certification option.

Admission Requirements

Applicants seeking admission to the graduate program in Biology or Marine Biology are required to submit the following to the Graduate School:

1. An application for graduate admission
2. Official transcripts of all college work (undergraduate and graduate)
3. Official scores on the Graduate Record Examination (verbal, quantitative, and advanced biology)
4. Three recommendations by individuals in professionally relevant fields

Satisfactory scores on the Graduate Record Examination - verbal plus quantitative (a minimum score of 1000) and advanced biology (a score of 600), a bachelor's degree from an accredited college or university or its equivalent in a foreign institution based on a four-year program, and an overall academic record with a "B" average or better in the undergraduate major are the minimum requirements for graduate admission.

Degree Requirements

1. The program requires 30 semester hours of graduate study.
2. 6 semester hours of credit may be transferred from another accredited institution. Grades earned on transfer work must be equivalent to "B" or better.
3. A minimum of 24 semester hours of graduate study must be completed in residence.
4. No more than 6 hours of graduate level courses offered by other science departments at UNCW may be applied toward the degree.
5. No more than 10 credit hours from those courses crosslisted as 400/500 may be applied toward the degree. Undergraduate courses taken in fulfilling a language requirement or making up deficiencies will not count toward the 30 hours required.
6. All deficiencies must be remedied prior to graduation.
7. The student may be required pass a competency examination in a foreign language French, German, Spanish, or Russian. A computer language e.g., PL/1, FORTRAN, or BASIC may be substituted for the foreign language requirement upon the committee's approval.
8. The student must successfully complete a written qualifying examination based on prior coursework and an oral defense of the thesis. The qualifying examination normally will be taken during the student's final semester in residence.
9. Each student will present a thesis, based on original research, acceptable to the committee, prior to graduation.
10. Each student must complete an approved course of study within five years of the date of the first registration for graduate study.

MASTER OF SCIENCE IN BIOLOGY

No specific tracks will be offered. Each student will be expected to devise an individual program of study designed to complement the thesis research in consultation with the graduate thesis committee.

Required:

BIO 501	Introduction to Scientific Research and Presentation (1)
BIO 593	Colloquium (1)
BIO 595	Seminar (1)
BIO 599	Thesis (3-6)

MASTER OF SCIENCE IN MARINE BIOLOGY

The curriculum of the program allows students to elect one of three tracks: Marine Biology Biological Oceanography, or Coastal Biology. Within each track, a student and his/her graduate thesis committee have the necessary latitude to develop a plan of study which will meet the particular needs of the individual.

Requirements for the Marine Biology track:

A minimum of 6 hours from the following:

BIO 560 Estuarine Biology (3)
BIO 562 Coastal Ecosystems (3)
BIO 564 Biological Oceanography (3)
BIO 569 Advanced Oceanography (3)

and:

BIO 501 Introduction to Scientific Research and Presentation (1)
BIO 593 Colloquium (1)
BIO 595 Seminar (1)
BIO 599 Thesis (3-6)

A minimum of 15 hours of electives of which at least 12 hours must be in biology courses. lo more than 3 credits of BIO 591 (Directed Independent Study) may be used.

Requirements for the Biological Oceanography track:

BIO 501 Introduction to Scientific Research and Presentation (1)
BIO 564 Biological Oceanography (3)
BIO 569 Advanced Oceanography (3)
BIO 593 Colloquium (1)
BIO 595 Seminar (1)
BIO 596 Seminar at Sea (1)
BIO 599 Thesis (3-6)

A minimum of 14 hours of electives of which at least 9 hours must be in biology courses. lo more than 3 credits of BIO 591 (Directed Independent Study) may be used.

Requirements for the Coastal Biology track:

BIO 501 Introduction to Scientific Research and Presentation (1)
BIO 560 Estuarine Biology (3)
BIO 562 Coastal Ecosystems (3)
BIO 592 Seminar at the Coast (1)
BIO 593 Colloquium (1)
BIO 595 Seminar (1)
BIO 599 Thesis (3-6)

A minimum of 14 hours of electives of which at least 9 hours must be in biology courses. o more than 3 credits of BIO 591 (Directed Independent Study) may be used.

GRADUATE PROGRAM IN BIOLOGICAL SCIENCES

Course Descriptions

IO 501. Introduction to Scientific Research and Presentation (1) Scientific manuscript preparation and communication techniques: manuscript format, graphics, design of experiments, library use, and writing techniques. One lecture and one laboratory hour each week.

IO 512. (410) Electron Microscopy and Cell Ultra Structure (3) Prerequisite: Course in cell physiology or permission of instructor. A discussion of the general and specialized techniques of transmission and scanning electron microscopy and their application to the elucidation of the structure and function of cell organelles in plants and animals.

BIOL 512. (BIOL 410) Electron Microscopy Laboratory (1) Corequisite: BIO 512 and permission of instructor. Techniques for fixing, embedding and thin sectioning of tissue will be demonstrated. Students will prepare a material of choice for observation and analysis and examine the prepared material with the electron microscope. Three laboratory hours each week.

BIO 515. Membrane and Neurobiology (4) Prerequisite: Course in physiology or permission of instructor. Introduction to the principles of diffusion, osmosis, active transport, and membrane biophysics with emphasis on cellular and whole animal ionic and osmotic regulation, and neurophysiology. Emphasis will be placed on marine invertebrates and vertebrates. The laboratory will give experience in ion measurements, radioisotope handling, flux studies, and neurophysiological techniques. Three lecture and three laboratory hours each week.

BIO 519. Advanced Topics in Cellular and Molecular Biology (2-4) Prerequisite: Upper level undergraduate or graduate course work in cellular and molecular biology or permission of the instructor. In depth study of selected topics in cellular and molecular biology. Examples are: the cytoskeleton and its components, the dynamics of membrane structure and function, the metabolism of nitrogenous compounds, the control of gene expression, and the biology of extrachromosomal DNA. Lecture and laboratory.

BIO 520. (415) Vertebrate Histology (4) Prerequisite: Credit in biology. An introduction to the cytology and morphology of vertebrate cells and tissues, including examination of the four major histological tissues: epithelium, connective tissue, muscle, and nerve. Other topics include the techniques and instrumentation of light microscopy and selected methods of sectioning, fixation, and staining of tissues. Student project required. Three lecture and three laboratory hours each week.

BIO 524. (425) Microbiology (4) Prerequisite: Core courses. A study of nonpathogenic and pathogenic microorganisms with emphasis on the biology of viruses and bacteria. Laboratory sessions will include the techniques required to identify, culture, and stain selected microorganisms. Three lecture and three laboratory hours each week.

BIO 525. Marine Microbiology (4) Prerequisite: Course in microbiology or permission of instructor. Concepts of structure and function of microbes and their nutrition, metabolism, adaptation, and genetics, as related to the marine environment. The laboratory will center on techniques of studying microbes and their ecology, and the systematics of important microorganisms. Three lecture and three laboratory hours each week.

BIO 526. Advanced Topics in Microbiology (2-4) Prerequisite: Microbiology and organic chemistry or permission of instructor. Advanced coverage of the taxonomy, morphology, metabolism, genetics, and ecology of microorganisms. Emphasis will be placed on the current microbiological literature. Lecture and laboratory.

BIO 529. (430) (ANT 430) Evolutionary Biology (3) Prerequisite: Biology 335. Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature.

BIO 530. Invertebrate Evolution (3) Prerequisite: Basic course in invertebrate biology or permission of instructor. Critical analysis of current theories on the origin of the invertebrates and on origins of invertebrate phyla. The course will include a review of the historical development of evolutionary thought concerning invertebrate phylogeny, both from a neontological and palenontological viewpoint. Relevant data from modern studies in embryology, larval development, comparative morphology, functional morphology, and serology will be stressed. Each student will be required to prepare a summary paper on the status of knowledge for a selected invertebrate group.

BIO 531. Population Genetics (3) Prerequisite: Genetics. Basic principles of the dynamics of genes within populations. Topics include fitness, polymorphism, genetic equilibrium, and the effects of non-random mating and selection.

BIO 534. (466) Advanced Ecology (4) Prerequisite: Ecology. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching aand student research. Two lecture and four laboratory hours each week.

BIO 535. (435) Molecular Genetics (3) Prerequisite: A course in genetics, biochemistry, or cell physiology. An overview of current understanding of the nature, function, and control of genes. Topics include the nature of genetic information; the sequence organization and packaging of the eucaryotic genome; DNA, RNA, and protein systhesis; recombinant DNA technology; RNA processing; transposable genetic elements; and antibody diversity synthesis and function.

BIO 536. (436) Recombinant DNA Techniques (2) Prerequisite: A course either in genetics, physiology, or biochemistry. Basic principles and techniques of gene cloning using all three major types of cloning vectors: lambda phage, plasmids, and the single stranded DNA phage M13. Provides hands-on experience in recombinant DNA methodology. One lecture and four laboratory hours each week.

BIO 537. (457) Ichthyology (4) The systematics, evolution, and natural history of fishes, with field work emphasizing the ecology and behavior of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

BIO 538. Cytogenetic Methodology (2) A laboratory course introducing the techniques necessary to study and analyze the chromosomes of a variety of organisms including plants and animals. One four-hour laboratory each week.

BIO 539. Advanced Topics in Population Biology (2-4) Prerequisite: Courses in genetics and ecology or permission of instructor. A lecture course covering the ecology, genetics, and evolution of populations. Topics include dynamics of population structure, growth, and regulation; natural selection and the maintenance of genetic variation within populations; differentiation of populations and speciation; evolution of population strategies.

BIO 540. (465) Biochemistry (3) Prerequisite: Organic chemistry. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics; bio-energetics; regulatory mechanisms.

BIO 544. (440) Developmental Biology (4) Concepts of mechanism and control in development. Topics include cell lineage determination, differential gene activity, cell recog-

nition phenomena, hormones, and environmental control of development. Plant and animal systems studies in modern research literature will be discussed. Three lecture and three laboratory hours each week.

BIO 545. (445) Marine Physiology (4) Introduction to physiological systems characteristic of marine vertebrates and invertebrates. Emphasis is placed on the mechanisms underlying osmoregulation, respiration, temperature regulation, digestion, and movement. Three lecture and three laboratory hours each week.

BIO 549. Advanced Topics in Animal Physiology (2-4) Prerequisite: Permission of instructor. Advanced study of discrete physiological subject matter in which significant new understanding has been obtained. In particular, the course will consider those emergent techniques which have permitted the application of the scientific method to particular physiological problems. Lecture and laboratory.

BIO 550. Vertebrate Systematics (4) Prerequisites: Two of the following: Ornithology, Herpetology, Mammalogy, Ichthyology. A detailed study of the processes of speciation in the vertebrates, including the theoretical and pragmatic approaches. Nomenclatorial procedures will be discussed. Three lecture and three laboratory hours each week.

BIO 551. Advanced Vertebrate Biology (2) Prerequisite: Permission of instructor. Individualized instruction in the identification, classification, and habitats of the terrestrial vertebrates of the coastal zone. This course will emphasize field methodologies and is designed to fill gaps in each student's knowledge of the classes of terrestrial vertebrates. Four laboratory hours each week.

BIO 552. (462) Deep Sea Biology (3) The biology of animals inhabiting the deep sea environment off North Carolina. Emphasizes faunal zonation, abyssal zoogeography, high pressure and low temperature adaptations, reproductive strategies, origin and speciation in deep sea.

BIO 553. Natural History of Intertidal Organisms (3) Prerequisite: Basic course in invertebrate biology or permission of instructor. A study of the strategies adopted by major invertebrate groups inhabiting the intertidal zone. Field trips will permit the student to observe and identify relationships between vertical ranges of intertidal organisms and local biological and physical parameters that define zonation. An individual or group project on some aspect of recruitment, site preference, succession, or competition in intertidal populations will be required. Two lecture hours and field work.

BIO 554. (452) Mammalogy (4) A study of mammals, emphasizing their evolution, taxonomic relationships, structural and physiological adaptations, and life histories. Laboratory sessions will include collection, identification, preparation of specimens, and observations of mammals in the field. Three lecture and three laboratory hours each week.

BIO 556. (456) Ornithology (4) An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

BIO 557. (454) Herpetology (4) A study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Three lecture and three laboratory hours each week.

BIO 558. Biology of Recreational and Commercial Fishes (3) Prerequisite: Basic course in ichthyology or permission of the instructor. Topics will broaden the student's knowledge of management of economically and socially important aquatic resources through discussions on ecology, and fisheries, oceanography, aquaculture, fish diseases, and contemporary research. The emphasis will be upon fishes, but the course will include information on shrimp, molluscs, whales, and other marine species. Two lecture and three laboratory periods each week.

BIO 559. (481) Marine Invertebrate Zoology (4) A field oriented course which provides in-depth ecological and taxonomic treatment of selected invertebrate groups. Three lecture and three laboratory hours each week.

BIO 560. Estuarine Biology (3) Prerequisite: Course in general ecology or permission of instructor. A study of the physical, chemical, and biological interactions within estuaries emphasizing nutrient cycles and energy flows in estuarine ecosystems. Two lecture and three laboratory hours each week.

BIO 561. Barrier Island Ecology (3) Prerequisite: Course in general ecology or permission of instructor. A survey of the dune forest and tidal marsh flora and vegetation. Topics will include descriptive, physiological, and applied aspects of barrier island plants. Special topics include dune environment, halophytes, salt-spray effects, marsh energetics, and nutrient cycling. Quantitative techniques will be used in characterization of island communities. Two lecture and three laboratory hours each week.

BIO 562. Coastal Ecosystems (3) Prerequisite: Course in general ecology or permission of instructor. Ecology of the major plant communities on the Coastal Plain. Systematics, structure, and functions of the coastal community will be emphasized. Biotic and environmental sampling and comparison techniques will be emphasized. Two lecture and four laboratory hours each week.

BIO 563. Physical Oceanography (4) Dynamics and physics of the ocean with emphases on the physical properties of sea water, flow dynamics, and circulation. The laboratory will emphasize instrumentation, data collection, and analyses of marine dynamics. Three lecture and three laboratory hours each week.

BIO 564. Biological Oceanography (3) Encompasses a spectrum of special topics on factors that control the distribution patterns of marine organisms. The topics include: identification and evolution of marine biomes; seasonal, temporal, and spatial trends in temperate marine environment; tropical vs polar marine productivity; temperature of water masses and biological implications with emphasis on gulf stream biology; pelagic and benthic community structure; marine food chain and trophodynamics; models of energy flow and budgets; biology of outer continental shelf; recruitment mechanism as influenced by natural and man-made causes. Special emphasis will be placed on methods of data gathering and theories behind advanced biological oceanographic techniques. Each student will specialize in a selected topic and will present a report at the end of the term.

BIO 565. (458) Fisheries Biology (4) Prerequisite: Ichthyology, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, and economic pressure are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

BIO 566. Behavioral Ecology of Reef Fishes (3) Prerequisite: Course in ichthyology or permission of instructor. An ecological and ethological approach to the study of reef fish biology. Current theories and problems dealing with the ecological niche, competition, social systems, and population biology. Two lecture and three laboratory hours each week.

BIO 567. (460) Limnology (4) Prerequisite: A laboratory course in inorganic chemistry or permission of instructor. An examination of the physical, chemical, and biological characteristics of freshwater systems, particularly lakes, with an emphasis on the interrelationship of these characteristics. Three lecture and three laboratory hours each week.

BIO 569. Advanced Oceanography (3) Prerequisite: A descriptive oceanography course. This course will consider mechanisms and dynamics of the ocean; the physical processes propelling oceanic currents, the reception and transmission of energy, and its influence upon living systems, statics and dynamics of waves, chemical distribution in the sea and their influence upon living marine organisms, dynamics of fertility, and productivity in the marine environment. Two lecture and three laboratory hours each week.

BIO 570. (468) Planktonology (4) Prerequisite: Invertebrate zoology or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

BIO 571. (446) Phycology (4) Prerequisite: BIO 205. An introductory survey of algal groups including benthic, planktonic, freshwater, and marine representatives in local environments. Morphology, life histories, and ecology are emphasized. Collection and preservation techniques are demonstrated. Three lecture and three laboratory hours each week.

BIO 572. (472) Marine Phycology (4) An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction. Three lecture and three laboratory hours each week.

BIO 573. (477) Mycology (4) Prerequisite: BIO 205 and 207. Taxonomy, morphology, and ecology of fungi with emphasis on fungal evolution and the importance of fungi to humans. Fungi as causal agents of both plant and animal diseases will also be discussed. Three lecture and three laboratory hours each week.

BIO 574. (475) Plant Taxonomy (4) Prerequisite: Introductory botany. An introduction to identification, classification, and nomenclature of vascular plants with emphasis on the flora of southeastern North Carolina. Two lecture and four laboratory hours each week.

BIO 575. Taxonomy of Aquatic and Wetland Plants (3) Prerequisite: Introductory plant taxonomy or consent of instructor. Discussion, collection, and identification of vascular plants found in the aquatic and wetland habitats of coastal North Carolina. Extensive field work and individualized instruction in collection and identification techniques. Two lecture and three laboratory hours each week.

BIO 576. (474) Comparative Morphology of Vascular Plants (4) A detailed study of the major groups of vascular plants with emphasis on structure, life histories, development, and phylogeny. Three lecture and three laboratory hours each week.

BIO 577. Marine and Estuarine Mycology (3) Prerequisite: Mycology or permission of instructor. An in-depth survey of the mycoflora of oceanic and estuarine waters with emphasis on collecting and culturing techniques. An in-depth treatment of taxonomy and ecology of important fungal groups will also be given. Two lecture and three laboratory hours each week.

BIO 579. Advanced Topics in Organismic Biology (2-4) Prerequisite: Permission of instructor. Advanced study of the ecology, natural history, behavior, or systematics of selected groups of organisms. Lecture and laboratory.

BIO 580. (480) Field Studies in Biology (1-6) A research experience-oriented field course offered in selected regional locales. Emphasis is placed on distribution, taxonomy, and ecology of animal and/or plant organisms.

BIO 585. (485) Special Topics in Advanced Biology (1-6) Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

BIO 591. Directed Independent Study (3)

BIO 592. Seminar at the Coast (1) Participation in planning and conducting a series of field exercises in the coastal zone of North Carolina.

BIO 593. Colloquium (1) Investigation and discussion of selected topics and current issues through the interaction of students, faculty, and expert guest lectures.

BIO 594. Practicum in College Biology Teaching (2) An introduction to theory, research, and practice in college biology teaching. Combines supervised internship in introductory biology with formal classroom instruction. For graduate students who have been awarded teaching assistantships in the Department of Biological Sciences and others with permission of instructor.

BIO 595. Seminar (1) Discussion of selected topics in biology.

BIO 596. Seminar at Sea (1) Participation in pre-cruise planning and a biological oceanography cruise to obtain practical knowledge on methods of sampling.

BIO 599. Thesis (1-6)

MASTER OF SCIENCE IN CHEMISTRY

The Department of Chemistry offers a program of study leading to the Master of Science degree in Chemistry. The objectives of this program are to give students who have an undergraduate foundation in chemistry the opportunity to engage in advanced course work, in-depth study, and independent research, in order to acquire the skills of assimilating known information and generating new knowledge. These problem-solving skills will provide the foundation for future contributions by the graduates in various areas of chemistry, whether they seek employment directly or choose to undertake further graduate study elsewhere.

Admission Requirements

Applicants seeking admission to the graduate program in Chemistry are required to submit the following to the Graduate School:

1. An official application for graduate admission
2. Official transcripts of all college work (undergraduate and graduate)
3. Official scores on the Graduate Record Examination (verbal, quantitative and advanced chemistry)
4. Three recommendations by individuals in professionally relevant fields

A minimum score of 1000 on the Graduate Record Examination (verbal and quantitative) is expected. Scores on the Advanced Chemistry portion of the Graduate Record Examination will be used for diagnostic purposes. A bachelor's degree with a concentration in chemistry from an accredited college or university in this country or its equivalent in a foreign institution based on a four-year program is required for admission, along with a "B" average or better in chemistry courses. Admission decisions are based upon several factors, and where other indicators of success warrant, individuals who fall below the established criterion in one of the areas may be considered for admission.

Degree Requirements

1. Programs leading to the Master of Science degree require a minimum of 30 semester hours of graduate study. Up to 6 credit hours of graduate courses in other natural and mathematical sciences may be approved by the student's advisory committee. A maximum of 6 semester hours of credit may be transferred from another accredited institution. Grades earned on transfer work must be equivalent to a "B" or better, and courses must be acceptable to the student's advisory committee. A minimum of 24 semester hours of graduate study must be completed in residence.

2. Deficiencies in a student's undergraduate preparation will be ascertained by a committee of faculty members in the Department of Chemistry. Placement tests in the basic areas of chemistry may be administered to incoming students at the discretion of the faculty committee to assist with evaluation of deficiencies. Any deficiencies must be remedied prior to graduation.

3. The student must successfully complete a written and an oral comprehensive exam.

4. The student must demonstrate computer proficiency.

5. A thesis reporting the results of the student's original research project must be submitted and approved by the student's advisory committee. An oral defense of the thesis will be required. Each student will present a seminar on his or her research project.

6. The program shall be completed within five years of the date of first registration for graduate study.

Required Courses

CHM 501 Introduction to Chemical Research (1)
CHM 595 Graduate Seminar (1)
CHM 599 Thesis (6)

and at least two of the following three choices:
CHM 516 Advanced Chemical Synthesis (3)
CHM 536 Spectroscopy (3)
CHM 521 Thermodynamics (3) or CHM 522 Rates and Mechanisms (3)

GRADUATE PROGRAM IN CHEMISTRY

Course Descriptions

CHM 501. Introduction to Chemical Research (1) Scientific proposal and manuscript preparation. Communication techniques. Experimental design and data analysis. Computer applications. Library use. Laboratory safety. Two hours each week.

CHM 515. (415) Advanced Organic Chemistry (3) Prerequisite: Two semesters of Organic Chemistry. Theoretical and physical organic chemistry, including chemical bonding, stereochemistry, and conformational analysis with applications to selected reaction mechanisms.

CHM 516. Advanced Chemical Synthesis (3) Prerequisite: Inorganic Chemistry and two semesters of Organic Chemistry, or permission of instructor. Modern organic and inorganic synthesis with emphasis on carbanion and free radical intermediates. Synthesis and use of organometallic compounds. Chemical oxidations and reductions Formation of ring systems.

CHM 517. (417) Medicinal Chemistry (3) Prerequisite: Two semesters of Organic Chemistry. Systematic study of the chemistry and biological activity of hormones, vitamins, drugs affecting the nervous system, and other miscellaneous agents.

CHM 521. Chemical Thermodynamics (3) Prerequisite: Physical Chemistry, including chemical thermodynamics. Basic concepts and principles of chemical thermodynamics as derived from the Laws of Thermodynamics. Applications of thermodynamic principles to chemical and phase equilibria, solutions of electrolytes, and electrochemistry.

CHM 522. Rates and Mechanisms (3) Prerequisite: Physical Chemistry. Chemical kinetics and reaction mechanisms. Transition state and collision theories. Catalysis.

CHM 535. (435) Advanced Analytical Chemistry (2) Prerequisites: Physical Chemistry and Quantitative Analysis or Analytical Chemistry. Theory of modern analytical instrumentation and techniques. Normally taken concurrently with Advanced Analytical Chemistry Laboratory (CHML 535).

CHML 535. (CHML 435) Advanced Analytical Chemistry Laboratory (2) Prerequisite or corequisite: CHM 535. Applications of modern analytical instrumentation and techniques. Four laboratory hours each week.

CHM 536. Spectroscopy (3) Prerequisite: Organic Chemistry. Fundamentals of interaction of electromagnetic radiation with matter. Principles and applications of vibrational, electronic, multinuclear magnetic resonance, electron spin resonance, Raman, x-ray and gamma ray spectroscopic methods.

CHM 546. (446) Advanced Inorganic Chemistry (3) Prerequisite: A physical chemistry based course in Inorganic Chemistry. Advanced topics in theoretical inorganic chemistry.

CHM 565. (465) Biochemistry (3) Prerequisites: Physical Chemistry and two semesters of Organic Chemistry. Study of the physical structures of carbohydrates, lipids, amino acids, proteins, nucleic acids, vitamins and minerals, and the chemical principles governing their biological activity. Special emphasis will be given to enzyme kinetics, solution properties of macromolecules, and the thermodynamic principles of intermediary metabolism.

CHML 565. (CHML 465) Biochemical Techniques and Instrumentation (1) Prerequisite or corequisite: Biochemistry. Theory and practice of biochemical techniques, including buffer and reagent preparation, protein assay, protein purification, electrophoresis, enzyme kinetics, tryptic peptide digestion, membrane vesicle construction, DNA isolation, and radio-isotope detection. Three laboratory hours each week.

CHM 575. (475) Chemical Oceanography (3) Prerequisites: General Chemistry. An oceanography course is recommended. Sources, distribution, forms of occurrence, and reactions of chemical species in seawater. Estuarine reactions, air-seawater and sediment-seawater reactions, and human impact on the oceans.

CHM 576. (476) Chemical Analysis of Natural waters (2) Prerequisite: Permission of instructor. Chemical analysis of natural waters, including river water, lake water, groundwater, rainwater, and seawater. Analytical methods will be evaluated with respect to appropriate applications. Analyses include salinity, chloride, dissolved oxygen and oxygen demand, pH and alkalinity, nutrients, chlorophyll, suspended material, and dissolved metals. One lecture and three laboratory hours each week.

CHM 585. (485) Industrial Chemistry (3) Prerequisites: Physical Chemistry and two semesters of Organic Chemistry. The characteristics of large scale chemical processes, including materials of construction, reactor design, fluid transport, solvent recovery and reuse, quality control, and environmental impact. Specific example processes include the conversion of raw petroleum feedstocks to plastics, fibers, fuels, and the production of ethical drugs.

CHM 586. Polymer Chemistry (3) Prerequisites: Physical Chemistry and two semesters of Organic Chemistry. Synthesis and properties of polymers. Thermodynamics and kinetics of polymerization. Physical characterization and industrial uses of polymers.

CHM 591. Directed Individual Study (1-3) Chemical research not related to thesis work.

CHM 592. Special Topics (1-3) Study of a topic or technique in chemistry not covered in regular courses. May be repeated for credit.

CHM 595. Graduate Seminar (1) Discussion by students, faculty, and guest lecturers of research ideas and/or research results. May be repeated one time for credit

CHM 599. Thesis (1-6) Laboratory research for thesis and thesis preparation.

MASTER OF ARTS IN ENGLISH

The Department of English offers a program of study leading to the Master of Arts degree in English. Students, in consultation with their advisors, tailor their course schedules to their own career objectives and interests, selecting a variety of courses in literature, language, rhetoric and composition, and professional writing.

This program is designed for those who wish to become more professionally competent as writers, editors or writing consultants in business, industry, or government, those planning to teach English on all levels, those intending to pursue doctoral study in English, and those with a keen interest in contemporary approaches to literary texts, literary theory, and composition theory.

Admission Requirements

Applicants seeking admission to the graduate program in English are required to submit the following to the Graduate School:

1. An application for graduate admission
2. Official transcripts of all college work (undergraduate and graduate)
3. Official scores on the Graduate Record Examination (no more than five years old)
4. Three recommendations by individuals in professionally relevant fields

A minimum score of 500 on the verbal section of the Graduate Record Examination, a satisfactory response to the essay question attached to the application form, a bachelor's degree from an accredited college or university or its equivalent in a foreign institution based on a four-year program, and an overall academic record with a "B" average or better in the undergraduate major are the minimum requirements for admission.

The deadline for receiving applications is June 15 for the fall semester. All interested applicants will be considered for graduate assistantships, which will be awarded on a competitive basis by July 1.

Degree Requirements

1. The program requires a minimum of 30 semester hours of graduate study, including ENG 501, Introduction to Research Methods in English, and ENG 502, Introduction to Literary and Writing Theory. At least 24 semester hours must be completed in residence at UNCW.
2. A maximum of 6 semester hours may be transferred from another accredited institution. Grades on transfer work must be equivalent to "B" or better.
3. A written comprehensive examination must be successfully completed. This is usually done during the semester in which the student is enrolled in final course work.
4. The student will present and defend a thesis, acceptable to the graduate faculty committee, prior to graduation. The thesis defense will be open to the public.
5. Students must complete the program within five years of the date of first registration for graduate study.

GRADUATE PROGRAM IN ENGLISH

Course Descriptions

ENG 501. Introduction to Research Methods in English (3) Analysis of the content of English studies, stressing bibliographic tools and the aims and methods of literary and writing research.

ENG 502. Introduction to Literary and Writing Theory (3) Analysis of the philosophical, historical, and social foundations of literary and writing theory. Emphasis on problems of meaning, interpretation, and evaluation. Examination of relevant critical figures and schools in historical context.

ENG 510. Folklore (3) Study of the theory and history of folklore, customary modes of behavior, informal systems of communication, and the theory and practice of folklore collecting. Fieldwork project required.

ENG 520. Linguistics (3) Study of diverse aspects of human language, with particular attention to American English. Topics include analysis of principles of sound formation, syntax, and meaning; sociolinguistics and psycholinguistics; language acquisition and development in children.

ENG 522. History of the English Language (3) Study of the development of the English language from Old English to contemporary American dialects. Includes study of cultural, political, and linguistic factors affecting language change.

ENG 523. Modern English Grammar (3) Study of the structure of the English language, using modern methods of analysis.

ENG 524. Semantics and the English Language (3) Study of the effect of language upon thought and behavior. Particular attention is paid to practical applications of semantic theory.

ENG 525. Seminar in Linguistics (3) In-depth study of a topic in linguistics. May be repeated for credit under different subtitle.

ENG 530. Creative Writing (3) Writing instruction in four genres: essay, poetry, fiction, and drama. Comparison of techniques in the genres and analysis of work by students and professional authors.

ENG 542. Poetry Writing (3) Instruction in writing poetry, with classroom critique of students' work and work by professionals. Includes study of publishing markets.

ENG 544. Fiction Writing (3) Instruction in writing short fiction, with classroom critique of students' work and work by professionals. Includes study of publishing markets.

ENG 550. Workshop in Advanced Writing (3) Prerequisite: Consent of instructor. Intensive work, on an advanced level, in a specific area of writing. Topics could include Essay Writing, Technical Writing, Magazine Writing, Writing for Publication in Professional Journals, or Journalism. May be repeated for credit under different subtitle.

ENG 552. Theories of Composition (3) Analysis of theories related to the composing process, including the social and psychological nature of writing. Critique of research and a review of critical studies.

ENG 553. Advanced Studies in Composition (3) Prerequisite: Completion of ENG 552 or consent of instructor. Advanced study of a topic in composition. Topics vary; typical

offerings could include History of Rhetoric, the work of one or more theorists, or Theories of Reading and Writing. May be repeated for credit under different subtitle.

ENG 560. **Topics in British Literature (3)** Study of major periods in British literature. Could include Old and Middle English Literature, British Literature of the Renaissance, Restoration and Eighteenth Century British Literature, Nineteenth Century British Literature, Twentieth Century British Prose, or Twentieth Century British Poetry. May be repeated for credit under different subtitle.

ENG 561. **Topics in American Literature (3)** Study of major periods in American literature. Could include American Literature to 1865, American Literature from 1865 to 1914, American Literature from 1914 to 1945, or American Literature since 1945. May be repeated for credit under different subtitle.

ENG 563. **Topics in World Literature (3)** Study of major traditions in World Literature. Could include European Literature or Third World Literature. May be repeated for credit under different subtitle.

ENG 571. **Literature for Adolescents (3)** A reading course in the literature of selected writers who emphasize distinctive roles, experiences, feelings, and problems of adolescence. Special emphasis given to evaluating the literature studied in terms of its aesthetic appeal and its cultural significance.

ENG 572. **Literary Criticism: The Major Statements (3)** A historical and analytic survey of influential approaches to the study of literature, from Plato and Aristotle to Matthew Arnold, T.S. Eiiot, and Stanley Fish. Attention to practical application.

ENG 580. **Special Studies in Literature (3)** Intensive examination of a special area of literary study. May be repeated for credit under different subtitle.

ENG 591. **Directed Independent Study (3)**

ENG 599. **Thesis (1-6)**

MASTER OF SCIENCE IN GEOLOGY

The Department of Earth Sciences offers a program of study leading to the Master of Science degree in Geology. The specific goals of the program are to provide advanced research and educational opportunities in the geological sciences, and to prepare geologists for solving contemporary problems in sedimentary geology. Specific objectives of the program are: 1) to develop research competence in sedimentary geology, 2) to develop professional competence in the assessment of water, energy and mineral resource potentials, 3) to develop a level of research competence in geology that encourages continued effort toward the doctoral degree, and 4) to provide the scientific community with meaningful research data on marine, coastal, and coastal plains geology.

Admission Requirements

Applicants seeking admission to the graduate program in Geology are required to submit the following to the Graduate School:

1. An application for graduate admission
2. Official transcripts of all college work (undergraduate and graduate)

3. Official scores on the Graduate Record Examination (verbal, quantitative, and advanced geology)
4. Three recommendations by individuals in professionally relevant fields

Satisfactory scores on the Graduate Record Examination - Aptitude (a minimum score of 1000) and advanced geology (a score of 600), a bachelor's degree from an accredited college or university or its equivalent in a foreign institution based on a four-year program, and an overall academic record with a "B" average or better in the undergraduate major are the minimum requirements for graduate admission.

Degree Requirements

1. The program requires at least 30 semester hours of graduate credit, with a maximum of 6 credit hours for the thesis and 3 credit hours for seminars. A maximum of 6 semester hours of graduate credit may be transferred from another accredited institution. Grades earned on transfer work must be equivalent to "B" or better. A minimum of 24 semester hours of graduate courses must be completed at UNCW; this includes both course work and thesis.
2. Each student must successfully complete a comprehensive qualifying oral examination which is administered no earlier than the semester the student is enrolled in final course work.
3. Each student must complete an approved course of study within five years of the date of first registration for graduate study.
4. Each student must present and defend a thesis, based on original research, acceptable to the committee, prior to graduation. The thesis defense is open to the public.

GRADUATE PROGRAM IN GEOLOGY

Course Descriptions

GLY 510. Ancient Sedimentary Environments (3) Prerequisite: Petrology, stratigraphy, field camp. Survey of ancient sedimentary environments with an evaluation of the criteria used in their recognition in the rock record. Specific ancient sedimentary sequences are examined and compared to their modern counterparts. Field trips.

GLY 511. Clastic Petrology (3) Prerequisite: Optical mineralogy. Classification and description of sandstones and mudrocks and evaluation of their diagenesis. Application of principles to economic deposits. Laboratory exercises concentrate on microscopic and X-ray techniques of analysis. Two lecture and three laboratory hours per week. Field trips.

GLY 512. Carbonate Petrology (3) Prerequisite: Optical mineralogy. Ancient carbonate rocks and modern carbonate depositional environments. Evaluation of the diagenetic processes of cementation, dolomitization and silicification, and the relationship of carbonate rocks to economic deposits. Two lecture and three laboratory hours per week. Field trips.

GLY 515. Methods of Sedimentology (3) Prerequisite: Petrology. A survey of the parameters of sedimentation. Emphasis on the processes involved in the formation of sedimentary rocks, including their origin, transport, deposition and lithification [of rock-forming minerals]. Techniques of physical and chemical analyses of sediments are stressed. One lecture and six laboratory hours per week. Field trips.

GLY 531. Micropaleontology (4) Prerequisite: Invertebrate paleontology or consent of instructor. Paleobiology and geological history of micro-organisms, emphasizing the classification and systematics of major microfossil groups. Three lecture and three laboratory hours per week. Field trips.

GLY 532. Biogeography (3) Prerequisite: Consent of instructor. Principles and methodology underlying the study of the distribution of organisms in aquatic and terrestrial environments; description of modern global distribution patterns and their development by physiographic, climatic, and evolutionary events in the past.

GLY 533. Paleoecology (3) Prerequisite: Invertebrate paleontology or consent of instructor. Principles of ecological faunal analysis as primarily applied to the marine fossil record. Emphasizes the integration of form and function, taphonomy, and community development through time, and sedimentology/stratigraphy as a synthetic approach to paleoenvironmental, paleobiological and evolutionary analyses. Applications to biostratigraphy are considered. Field trips.

GLY 535. Stratigraphic Paleontology (3) Prerequisite: Invertebrate paleontology, stratigraphy. Analysis of the stratigraphic distribution of invertebrates emphasizing the Cretaceous and Cenozoic fossil record; application of biostratigraphic principles and techniques in the development of high resolution relative time scales; practical experience in the stratigraphic aspects of paleontology through field, laboratory and literature research. Two lecture and three laboratory hours per week. Field trips.

GLY 540. Regional Geology of North America (3) Prerequisite: Structural geology, stratigraphy. Survey of the rocks, structures, natural resources, and tectonic histories of different regions of North America, such as the Precambrian shield, Appalachians, and Cordillera. Syntheses of theories of orogenesis.

GLY 542. Structural Evolution of Continental Margins (3) Prerequisite: Structural geology, stratigraphy. Structural characteristics and tectonic frameworks of passive and active continental margins. Comparison of modern settings and ancient analogs in the rock record.

GLY 550. Marine Geology (4) Prerequisite: Consent of instructor. Topography, sediments, structure and geologic history of the marine and estuarine environment. Three lecture and three laboratory hours per week. Field trips.

GLY 552. Coastal Sedimentary Environments (4) Prerequisite: Consent of instructor. Sedimentary processes and environments of the world's coastal systems. Emphasis on river deltas, estuaries, bays, salt marshes, barrier islands and associated inlets. Ice-bound as well as rocky coastlines are also examined. Three lecture and three laboratory hours per week.

GLY 555. Ocean Basin Sediments (3) Prerequisite: Consent of instructor. Classification and recognition of ocean basin sediments and their spatial distribution within the sedimentary record. Additional emphasis on the effects of ocean bottom and near bottom currents in the erosion, transport and deposition of the terrigenous and biogenic components. Techniques of physical and chemical analysis are stressed. Two lecture and three laboratory hours per week.

GLY 560. Advanced Stratigraphy (3) Prerequisite: Invertebrate paleontology, stratigraphy, petrology. Stratigraphic analysis of the geologic history of North America and parts of other continents. Emphasis on interpreting lithologic assemblages and stratigraphic relations in terms of modern tectonic-depositional models. Two lecture and three laboratory hours per week.

GLY 561. Coastal Plains Geology (3) Prerequisite: Invertebrate paleontology, stratigraphy, petrology. Origin and development of Gulf and Atlantic Coastal Plains with emphasis on stratigraphy, structure, geomorphology and tectonic history. Field trips.

GLY 563. Seismic Stratigraphy (3) Prerequisite: GLY 510 or consent of instructor. Seismic interpretation as a means of examining the stratigraphic framework of basins and continental margins. Relationships between seismic data and depositional systems. Introduction to obtaining and processing reflection data and sound propagation. One lecture and six laboratory hours per week.

GLY 571. Sedimentary Geochemistry (3) Prerequisite: one year each of chemistry, physics, and calculus. Application of geochemistry to the formation and diagenesis of sediments and sedimentary rocks. Examination of mineral precipitation, sediment cementation, metasomatism and chemical erosion.

GLY 580. Economic Mineral Deposits (3) Prerequisite: mineralogy, petrology and one year of chemistry. Description of metallic and nonmetallic mineral deposits that characterize island arcs, spreading centers, and intracontinental areas. Magmatic, hydrothermal, and sedimentary processes of ore formation. Field trips.

GLY 590. Topics in Sedimentary Geology (1-3) Prerequisite: Consent of instructor. Advanced special topics in sedimentary geology through lectures, seminars, laboratory or field experience.

GLY 591. Directed Independent Study (1-3)

GLY 595. Seminar (1) Prerequisite: Consent of instructor. Discussion of selected areas in sedimentary geology. Two hours per week.

GLY 599. Thesis (1-6)

MASTER OF ARTS IN HISTORY

The Department of History offers a program of study leading to the Master of Arts degree in History. Specific goals of the program are: 1) to provide advanced research and educational opportunities in the study of history and 2) to prepare historians by training them in the latest research techniques, providing them with a knowledge of the most current research on historical problems, and directing them in historical research using primary historical documents and archives.

Admission Requirements

Applicants are required to submit the following to the Graduate School:

1. An application for graduate admission
2. Official transcripts of all college work (undergraduate and graduate)
3. Official scores on the Graduate Record Examination
4. Three recommendations by individuals in professionally relevant fields.

The minimum requirements for admission to the graduate program in history include: Satisfactory scores on the Graduate Record Examination (Verbal and quantitative), and advanced placement examination in a field of the candidate's choice, a bachelor's degree from an accredited college or university or its equivalent in a foreign institution based on a four-year program, and an overall academic record with a "B" average or better in the basic courses prerequisite to the overall proposed graduate study.

Degree Requirements

1. The program requires a minimum of 30 semester hours of graduate study, 27 of which must be in history. A maximum of 6 semester hours of credit may be transferred from another accredited institution. Grades on transfer work must be equivalent to "B" or better. At least 24 hours of graduate study must be completed in residence.
2. A minimum of 24 semester hours of course work, including the thesis, must be in courses open only to graduate students. Courses open to seniors and graduate students will have additional requirements and different grading for graduate students.
3. Students must complete HST 500, 12 hours in the area of concentration and 9 hours of electives. 6 hours beyond HST 500 must be in seminars.
4. The student must successfully complete a written comprehensive examination which will be administered no earlier than during the final semester of enrollment in course work.
5. Each student will present a thesis, acceptable to the thesis committee, prior to graduation.
6. The student must pass a competency examination demonstrating satisfactory reading knowledge of a foreign language.
7. The program shall be completed within five years of the date of first registration for graduate study.

GRADUATE PROGRAM IN HISTORY

Course Descriptions

HST 500. Historiography and Methodology (3) Introduction to problems of historical research through examination of major historical works and current techniques of research, evaluation of sources, development of bibliography, and quantitative historical methods including the role of the computer in historical research. This course is open only to graduate students.

HST 510. (441) Colonial History of the U.S. (3) Formation and growth of American colonies to the conclusion of the French and Indian War (1763).

HST 511. (443) The American Revolution and the Formation of the United States, 1763-1800 (3) Organization of the British Empire, events preceding the Revolution, the war for independence, Confederation era, drafting and ratification of the federal Constitution, politics of the new nation.

HST 512. (445) The Early United States Republic (3) Era from inauguration of Thomas Jefferson through Jacksonian democracy to the advent of the American Civil War.

HST 513. (447) The Civil War and Reconstruction (3) The American Civil War and Reconstruction of the South through 1877.

HST 514. (449) Robber Barons and Reformers, the U.S., 1877-1917 (3) The rise of American industry and the Populist-Progressive response to urbanization and industrialization.

HST 515. (451) Twentieth Century America (3) A study of the United States from 1917 to 1950 with emphasis upon World War I, the Roaring Twenties, Depression and New Deal, World War II, and the origins of the Cold War.

HST 516. (452) America Since 1950 (3) Developments in American politics, cultural life, civil rights, and foreign policy from the time of the Truman Administration to the present, including the Cold War, Korea, the Vietnam War, Watergate, the energy crisis, the nuclear arms race, feminism, and the "Me Decade."

HST 517. (480) Topics in Afro-American History (3) An intensive historical study of selected themes and events in the History of Afro Americans from the origins of the Atlantic slave trade to the present. Examples of specific topics are: Slavery in the Americas, blacks and the American military tradition, black folklore, the Harlem Renaissance, and biographies of great Afro-American leaders.

HST 520. American History Colloquium (3) Readings and discussion of bibliographies, interpretations, and research trends on a theme offered in American history. This course is open only to graduate students.

HST 522. American History Seminar (3) Research in the bibliography of specialized topics and use of primary sources to write an original research paper on an aspect of American history. This course is open only to graduate students.

HST 524. Conflict and Consensus in American History (3) An application of the historiographic concepts of conflict and consensus in American society to the examination of specific periods or topics in American history. This course is open only to graduate students.

HST 530. (403) Medieval Civilization (3) A study of medieval institutions and culture with special emphasis on feudalism, manorialism, and the religious system of the period.

HST 532. (407) Europe in the Age of the Renaissance (3) Political, economic and social changes during the Renaissance, with special attention to the artistic and intellectual achievements of the age.

HST 533. (409) Europe in the Age of the Reformation (3) Causes and development of the Protestant Revolution and the Catholic Reformation with examination of the impact of these movements on the political, economic and social institutions of early modern Europe.

HST 534. (411) Europe: From Monarchy to Revolution (3) Modern Europe from the rise of absolute kings in the seventeenth century to the defeat of the Emperor Napoleon.

HST 535. (413) Europe: The Age of Industry and Empire (3) The origins and development of the industrial revolution in Europe; its effect on politics, population, urbanization and social class consciousness; the establishment of modern colonial empires in the nineteenth century and their place in the world economic order.

HST 536. (415) Europe and the Struggle for World Mastery (3) The rivalry of Europe's great powers leading to World Wars I and II: the causes, events, and results of those global conflicts.

HST 537. (417) Europe Since 1945 (3) The revival of Europe after the Nazi period and its division by the Cold War; political, social and economic developments on both sides of the "Iron Curtain;" decolonization of Europe's empires; movements for political and economic integration; continuing revolutionary currents; Europe's place in contemporary world politics.

HST 540. European History Colloquium (3) Readings and discussion of major research trends and schools of interpretation of selected themes in European history. This course is open only to graduate students.

HST 542. European History Seminar (3) Research in the bibliography of specialized topics and use of primary sources to write an original research paper on an aspect of European history. This course is open only to graduate students.

HST 544. Studies in European Biography (3) Examination of selected figures in European history and the extent to which they shaped and were shaped by their times. This course is open only to graduate students.

HST 554. (431) Chinese Revolution (3) The Chinese Revolution from the May 4th Movement (1919) to the present. Special emphasis on the social and economic origin of the revolution, the history of the Communist Movement, the evolution of Mao Zedong's thought, and revolutionary development in the People's Republic.

HST 560. Non-Western History Colloquium (3) Readings and discussion of bibliographies, interpretations, and research trends on a theme or period in non-Western history. This course is open only to graduate students.

HST 562. Non-Western History Seminar (3) Research in the bibliography of specialized topics and use of primary sources to write an original research paper on an aspect of non-Western history. This course is open only to graduate students.

HST 564. Modernization and Revolution in the Non-Western World (3) Examination of industrialization, imperialism, nationalism, and other forces that have revolutionized traditional society in the non-Western world. This course is open only to graduate students.

HST 570. (470) Introduction to Applied History (3) A research seminar that acquaints students with the various sectors of applied history (government and public policy, archives and information management, cultural resources management, media and research organizations), and with the research methodologies unique to the field. Field trips, guest speakers, and a sponsored research project provide practical experience for participants.

HST 572. Cultural Resources Management (3) Exploration of the theories and techniques of identifying, classifying, preserving, restoring, interpreting and managing the resources that make up this country's cultural heritage. In addition to readings, discus-

sions, guest lectures, and field trips, students will work with public, private, and non-profit agencies directly engaged in the business of preservation, restoration, and interpretation. Special emphasis will be placed on the study of three-dimensional artifacts and the meaning of material culture to the scholar. This course is open only to graduate students.

HST 574. Museum Studies (3) An introduction to the theories and practical application of managing a museum specializing in local, state, or regional history. Through readings, lectures, field trips, and a group project, students will familiarize themselves with the following: administration, collection development, preservation, research and interpretation, exhibition, educational programs and community outreach, coordinating volunteers, and fund raising. This course is open only to graduate students.

HST 575. Historical Administration (3) Introduction to the use of historical skills in managerial or administrative settings. In addition to a survey of the literature on professionalization and the role and function of the professional in a bureaucracy, students will gain some experience in the areas of budgeting, grantsmanship, personnel administration, short-term and long-range planning, goal setting, and strategy development. Special emphasis will be placed on issues relative to the planning, development, and management of historic sites and properties. This course is open only to graduate students.

HST 576. (482) Community Studies (3) Provides an introduction to the methodological and practical application of community studies. Topics include: oral history, folklore, ethnography, museum and archival collection and management, and historic preservation. Students will select a research project in cooperation with one of the local museums, historical societies, the public library, or other governmental agency.

HST 590. Comparative Historical Studies (3) Comparison of developments in different eras or places in order to determine unique or common historical themes. This course is open only to graduate students.

HST 591. Directed Independent Study (limited to one per student) (1-3). This course is open only to graduate students.

HST 593. Problems in History (3) Investigation of selected problems in European, American, and non-Western History through discussions, development of bibliographies, or a research paper. May be repeated one time for credit. This course is open only to graduate students.

HST 596. Seminar: Topics in History (3) Advanced research on specialized topics using, where possible, primary sources. May be repeated one time for credit. This course is open only to graduate students.

HST 599. Thesis (1-6). This course is open only to graduate students.

MASTER'S DEGREE PROGRAM IN MATHEMATICS

The Department of Mathematical Sciences offers a program of study leading to the Master of Arts or Master of Science degree in Mathematics. The Master of Science track has options designed to prepare students for careers in business, industry, or government as well as for further study in mathematics. Applications from the sciences, industry, and management are stressed in course work from the areas of classical applied mathematics, operations research, statistics, and computer science. The more traditional Master of Arts track includes an option designed for secondary and community college teachers. There is also an option for those who intend to pursue the Ph.D. degree and a more flexible option that may be used to build a strong, broad background in basic areas of both the pure and applied sides of mathematics. The Master of Science track has more admissions prerequisites and required course work.

Admission Requirements

Applications for admission may be made at any time. Applicants are required to submit, normally by March 15 for fall admission, the following to the Graduate School:

1. An application for graduate admission
2. Official transcripts of all college work (undergraduate and graduate)
3. Official scores on the Graduate Record Examination (GRE) Aptitude Test (Normally a minimum combined verbal and quantitative score of 1000 is necessary. Applicants are encouraged to take the GRE Advanced Test in mathematics as well. Scores more than five years old will not be accepted. In cases where the opportunity to take the GRE may be limited (such as in certain foreign countries) the applicant may request a waiver or modification of this requirement. Such requests will be considered by the department on their individual merit.)
4. Three recommendations from individuals in professionally relevant fields

Each applicant also must:

5. Have a strong overall academic record and have passed, with a "B" or better average, the following undergraduate mathematics courses or their equivalent: a standard introductory calculus sequence including multivariate calculus, a course in linear algebra, and at least 15 additional semester hours of mathematics or statistics courses beyond the level of calculus.

In addition, an applicant choosing the Master of Science track must:

6. Have had an undergraduate course in calculus-based statistics and have programming experience using a modern structured language; and
7. For the option Applied Mathematics I, be fluent in FORTRAN and have taken the following undergraduate mathematics courses or their equivalent: advanced calculus, elementary numerical methods, and introductory differential equations.

Admissions decisions are based upon examination of several factors, and where other indicators of success warrant, individuals who fall below the established criterion in one of the areas may be considered for admission. Such individuals may be required to take additional course work to remove deficiencies or required to demonstrate proficiency in certain areas. The student's advisory committee will determine any deficiencies and recommend appropriate remedies.

To ensure that the mathematical prerequisites have been met, any student not enrolled in the Mathematics degree program or the MAT Mathematics track must obtain permission from the Mathematical Sciences Department to register for any graduate course offered by the Department.

Degree Requirements

1. The Master of Arts degree requires 24 semester hours of course work and 6 hours of seminar and thesis for a total of 30 semester hours. The Master of Science degree requires 30 semester hours of course work and 6 hours of thesis for a total of 36 semester hours. In each case, at most 15 hours of course work may be taken from courses which are cross-listed at the 400 level.

2. The student must successfully complete a written or oral comprehensive exam which will be administered no earlier than during the final semester of enrollment in course work.

3. Each student will present a thesis, acceptable to the advisory committee, prior to graduation. The student will report orally on the thesis to an audience of students and faculty during the final semester before graduation.

Course Requirements for the Master of Arts in Mathematics

Each student must complete 30 semester hours of graduate study in Mathematics including:

MAT 595 Research Seminar (2), and
MAT 599 Thesis (4)

In addition, each student must elect one of the three options below. Each student will be assigned an advisory committee of faculty who will assist in selecting those courses best suited to the student's goals and who will advise the student concerning courses which may be inappropriate for the chosen option. Detailed advising guidelines are supplied to students by the department. The advisory committee must approve the student's planned program before the beginning of the second semester of residence. Any subsequent changes must have the approval of the advisory committee and the department chairman.

I. Mathematics - Secondary and Community College Teaching

A. Required core sequences:
MAT 511-512 Real Analysis I, II (3,3)
MAT 541-542 Modern Algebra I, II (3,3)

B. The remaining 12 hours of course work should be selected from: MAT 500 (strongly recommended); MAT 502, 515, 521, 522, 531, 551, 552, 555, 581, 582; STT 505, 510.

II. Mathematics - Preparation for Further Graduate Study

A. Required core sequences:
MAT 511-512 Real Analysis I, II (3,3)
MAT 541-542 Modern Algebra I, II (3,3)

B. Recommended courses:
MAT 513 Measure and Integration (3)
MAT 531 Linear Algebra (3)

C. The remaining course work must include a coherent pair of courses in mathematics or statistics, at least one of which is open to graduate students only. Acceptable pairs of courses in algebra, analysis, applied mathematics, complex analysis, linear algebra, logic, number theory, numerical analysis, probability, statistics, and topology are listed in the advising guidelines.

III. Mathematics - General

A. Required core sequences:
Either MAT 511-512 Real Analysis I, II
or MAT 518-519 Applied Analytical Methods I, II (3,3)
Either MAT 541-542 Modern Algebra I, II
or MAT 531, 533 Linear Algebra, Applied Matrix Theory
or MAT 535-536 Linear Programming and Discrete Optimization (3,3)

B. The remaining 12 hours of course work should include a coherent pair of courses in

nathematics or statistics. No more than two courses having a CSC designator and no more han two courses having a STT designator may be used to fulfill the 30 hour requirement.

Course Requirements for the Master of Science in Mathematics

Each student must complete 36 hours of graduate study in mathematical sciences ncluding:

MAT 599 Thesis (6)

In addition, each student must elect one of the three options below. Each student will be ssigned an advisory committee of faculty who will assist in selecting those courses best uited to the student's goals and who will advise the student concerning courses which may e inappropriate for the chosen option. Detailed advising guidelines are supplied to students y the department. The advisory committee must approve the student's planned program efore the beginning of the second semester of residence. Any subsequent changes must ave the approval of the advisory committee and the department chairman.

I. Applied Mathematics I

A. Required core sequences:

MAT 518-519 Applied Analytical Methods I, II (3,3)

Either MAT 535-536 Linear Programming and Discrete Optimization

or MAT 531, 533 Linear Algebra, Applied Matrix Theory (3,3)

B. Other required courses:

MAT (STT) 565 Applied Probability (3)

MAT 515 Introduction to Complex Variables (3)

MAT (CSC) 525 Numerical Analysis (3)

MAT 506 Scientific Computing (3)

C. At least two courses selected from: STT 505, MAT (CSC) 509; MAT 526, 531, 533, 35, 536, 537, 563, 564, 568, 569, 570; CSC 575

II. Applied Mathematics II

A. Required core sequences:

MAT 535-536 Linear Programming and Discrete Optimization (3,3)

Either MAT 511-512 Real Analysis I, II

or MAT 518-519 Applied Analytical Methods I, II (3,3)

B. Other required courses:

MAT(STT) 565 Applied Probability (3)

MAT(STT) 569 Stochastic Processes in Operations Research (3)

Either MAT 537 or MAT 570 (3)

One of: STT 505, MAT(CSC) 509, MAT(CSC) 525 (3)

C. The remaining course work should be selected from: MAT(CSC) 504, 509, 525; MAT 06, 511, 512, 526, 531, 533, 537, 541, 570; MAT(STT) 568; STT 505; CSC 507, 575

III. Mathematical Sciences

A. Required core sequences:

Either MAT 518-519 Applied Analytical Methods I, II

or MAT 511-512 Real Analysis I, II (3,3)

Either MAT 535-536 Linear Programming and Discrete Optimization

or MAT 531, 533 Linear Algebra, Applied Matrix Theory

or MAT 541-542 Modern Algebra I, II (3,3)

B. At least two courses selected from:

STT 505; MAT(STT) 565; MAT(CSC) 509, 525

C. The remaining courses may be selected from any of those required or recommended r either Option I or II of the M.S. track.

GRADUATE PROGRAM IN MATHEMATICS

Course Descriptions

MATHEMATICS

MAT 500. Introduction to Mathematical Computing (3) Prerequisite: Permission of department. Study of a structured programming language and applications on a microcomputer. Problem solving algorithms, numerical methods and graphics.

MAT 502. Survey of Applications of Mathematics (3) Prerequisite: STT 362 and either MAT 500 or computing experience. An introduction to the techniques of discrete, continuous and stochastic mathematical modeling. Model construction, data collection, and mathematical/computer analysis are emphasized. Scientific and business applications.

MAT 504. (CSC 504) Advanced Discrete Structures (3) Prerequisite: MAT 231 or consent of instructor. Survey of the mathematical foundations of Computer Science. Mathematical logic, set theory, algebraic structures, lattices and Boolean algebra, graph theory, introduction to computability theory.

MAT 506. Scientific Computing (3) Prerequisite: Fluency in FORTRAN and permission of department. Introduction to scientific computations on special-purpose machines. Machine architecture, survey of current machines, array processors, parallel processing, vectorization, software, applications.

MAT 509. (CSC 509) Design and Analysis of Algorithms (3) Prerequisite: CSC 332. Theory of the design of efficient computer algorithms. Algorithms for sorting, searching, matrix operations, fast Fourier transforms, pattern matching, polynomial arithmetic and operations on graphs. Additional topics selected from NP-completeness, recursion, data structure selection and complexity.

MAT 511-512. (411-412) Real Analysis (3-3) Prerequisite: Permission of department. Advanced study of convergence, continuity, differentiation and integration in Euclidean space. The real number system, basic topology of Euclidean spaces; sequences and series; continuity, differentiation of vector-valued functions, uniform continuity; theory of integration; implicit and inverse function theorems, Stokes' Theorem.

MAT 513. Measure and Integration (3) Prerequisite: MAT 512. Abstract measure theory. Lebesgue measure, integration, convergence theorems, absolute continuity, differentiation, Radon-Nikodym Theorem, product measures, Fubini's Theorem, Lebesgue spaces, convolution.

MAT 514. Functional Analysis and Applications (3) Prerequisite: MAT 512. Introduction to functional analysis and applications to areas such as linear and non-linear differential equations, integral equations and control theory. Topics selected from Banach spaces, operators, the Hahn-Banach Theorem, open mapping and closed graph theorems, Sovolev spaces, operators in Hilbert spaces and operational calculus.

MAT 515. (415) Introduction to Complex Variables (3) Prerequisite: Advanced calculus or MAT 511. A first study of functions of a complex variable. Algebra of complex

numbers, elementary functions with their mapping properties; analytic functions; power series; integration, Cauchy's Theorem, Laurent series and residue calculus; elementary conformal mappings and boundary value problems.

MAT 516. Complex Analysis (3) Prerequisite: MAT 511 and 515. Advanced study of complex-valued functions. Holomorphic and harmonic functions, Cauchy's Integral Theorem, Poisson's kernel and the Dirichlet problem, conformality, the Riemann Mapping Theorem, analytic continuation. Additional topics chosen from univalent, entire, meromorphic functions; Riemann surfaces; asymptotic methods; Mittag-Leffler, Runge and Weierstrass factorization theorems.

MAT 518-519. Applied Analytical Methods (3-3) Prerequisite: Undergraduate differential equations and advanced calculus. A thorough treatment of the solution of initial and boundary value problems of partial differential equations. Topics include classification of partial differential equations, the method of characteristics, separation of variables, Fourier analysis, integral equations and integral transforms, generalized functions, Green's functions, Sturm-Liouville theory, approximations, numerical methods.

MAT 521. (421) Number Theory I (3) Prerequisite: Permission of department. Use of algebraic techniques to study arithmetic properties of the integers and their generalizations. Primes, divisibility and unique factorization in integral domains; congruences, residues and quadratic reciprocity; diophantine equations and additional topics in algebraic number theory.

MAT 522. Number Theory II (3) Prerequisite: MAT 521. A continuation of the study of number theory using analytic methods. Number theoretic functions; distribution of primes and the prime number theorem; the Riemann zeta function; diophantine approximation and the geometry of numbers: additional topics in analytic number theory.

MAT 525. (425) (CSC 525/425) Numerical Analysis (3) Prerequisite: Undergraduate linear algebra, differential equations, and elementary numerical methods. Introduction to the theoretical foundations of numerical algorithms. Solution of linear systems by direct methods; least squares, minimax, and spline approximations; polynomial interpolation; numerical integration and differentiation; solution of nonlinear equations; initial value problems in ordinary differential equations. Error analysis. Certain algorithms are selected for programming.

MAT 526. Advanced Numerical Analysis (3) Prerequisite: MAT 525. Continuation of MAT 525. Rational and trigonometric interpolation, numerical integration, iterative techniques, eigenvalue problems. Numerical solution of initial and boundary value problems for ordinary differential equations, large linear systems, and partial differential equations.

MAT 531. Linear Algebra (3) Prerequisite: Permission of department. Theory of vector spaces, linear mappings and matrices. Determinants, eigenvalues, canonical forms, the Cayley-Hamilton Theorem, inner product spaces and positive definite matrices.

MAT 533. Applied Matrix Theory (3) Prerequisite: Undergraduate linear algebra and computing experience. Matrix theory and numerical techniques in linear algebra. Topics include elimination, iteration and factorization methods for systems of linear equations;

minimal polynomials, eigenvalue approximations, norms and error estimates, spectral theorem, symmetric and unitary bilinear forms.

MAT 535. (435) Linear Programming (3) Prerequisite: Undergraduate linear algebra and computing experience. Methods and applications of optimizing a linear function subject to linear constraints. Theory of the simplex method and duality; parametric linear programs; sensitivity analysis; modeling and computer implementation.

MAT 536. (436) Discrete Optimization (3) Prerequisite: MAT 535. Theory and applications of discrete optimization algorithms. Transportation problems and network flow problems; integer programming; computer implementation.

MAT 537. Nonlinear Programming (3) Prerequisite: Advanced calculus. Theory and applications for constrained and unconstrained nonlinear optimization. Theory of convex sets, convex and concave functions, Kuhn-Tucker conditions, duality, algorithm convergence; computational methods including penalty and barrier functions, gradient projection, and quadratic programming.

MAT 541. Modern Algebra I (3) Prerequisite: Permission of department. Introduction to group theory. Binary structures including semigroups and lattices; finite groups, structure theorems, Sylow theorems and applications; group actions; free groups and presentations; structure of abelian groups.

MAT 542. Modern Algebra II (3) Prerequisite: MAT 541. Introduction to rings and fields. Modules, integral domains, vector spaces. Structure of polynomial rings and their relation to linear algebra. Field extensions and Galois theory.

MAT 545. Group Theory (3) Prerequisite: MAT 541. Theory of groups. Isomorphism theorems; permutation groups and representation theorems; finite direct products and the fundamental theorem of abelian groups; the Sylow theorems and generalizations; normal series and solvable groups; extensions and semidirect products; theory of simple groups.

MAT 551. (451) Topology I (3) Prerequisite: Permission of department. A study of the basic concepts of general topology. Metric spaces, continuity, completeness, compactness, connectedness, separation axioms, product and quotient spaces; additional topics in point-set topology.

MAT 552. Topology II (3) Prerequisite: MAT 551 and knowledge of elementary group theory. An introduction to the concepts of algebraic topology. Classification of surfaces, manifolds, the fundamental group, covering spaces; additional topics in algebraic topology.

MAT 555. Modern Geometry (3) Corequisite: MAT 541. A survey of modern geometry from several perspectives. Euclidean and non-euclidean axiomatic geometries; finite geometries; projective geometry; transformations and invariants. Additional topics may include introductions to algebraic geometry, combinatorial geometry or differential geometry.

MAT 557. (457) Differential Geometry (3) Prerequisite: Advanced calculus. Theory of curves and surfaces in Euclidean space. Frenet formulas, curvature and torsion, arc length; first and second fundamental forms. Gaussian curvature, equations of Gauss and Codazzi, differential forms, Cartan's equations; global theorems.

MAT 558. Differentiable Manifolds (3) Prerequisite: MAT 557. A study of differentiable manifolds. Functions of several variables and mappings, implicit and inverse function theorems. Vector fields, tensors and forms, exterior derivatives, Lie derivatives, covariant derivatives and connections; Riemannian metrics, torsion and curvature tensors, Cartan's equations; Lie groups; submanifolds.

MAT 561. (461) Partial Differential Equations (3) Prerequisite: Undergraduate differential equations and advanced calculus. Theory and applications of linear partial differential equations. Elliptic, parabolic and hyperbolic equations; separation of variables; Fourier series; Green's functions; Sturm-Liouville problems.

MAT 562. (462) Continuous Mathematical Models (3) Prerequisite: MAT 561 or consent of instructor. Emphasis on the interplay between representative mathematical concepts and selected scientific models. Mathematical topics may include Fourier analysis, calculus of variations, operator theory, perturbation theory, tensor analysis, stability theory, integral equations, and potential theory. Areas of application may include classical, fluid, continuous, celestial, and quantum mechanics, wave propagation, and diffusion.

MAT 563. (463) Ordinary Differential Equations (3) Prerequisite: Undergraduate linear algebra and differential equations. Advanced study of ordinary differential equations. Existence and uniqueness; systems of linear equations, fundamental matrices, matrix exponential; series solutions, regular singular points; plane autonomous systems, stability and perturbation theory; Sturm-Liouville theory and expansion in eigenfunctions.

MAT 564. Applied Analytical Models (3) Prerequisite: MAT 519. Topics in applied analysis of current interest. Topics may include tensor analysis and relativity, quantum mechanics, control theory, fluid mechanics, waves, ocean circulation and mathematical models in biology or economics.

MAT 565. (465) (STT 565/465) Applied Probability (3) Prerequisite: STT 362. The formulation, analysis and interpretation of probabilistic models. Selected topics in probability theory. Conditioning, Markov chains, and Poisson processes. Additional topics chosen from renewal theory, queueing theory, Gaussian processes, Brownian motion, and elementary stochastic differential equations.

MAT 568. (STT 568) Stochastic Processes in Applied Mathematics (3) Prerequisite: MAT/STT 565. Probabilistic models with applications in the sciences and engineering. Markov processes, diffusion, stochastic differential equations.

MAT 569. (STT 569) Stochastic Processes in Operations Research (3) Prerequisite: MAT/STT 565. Probabilistic models with applications in operations research. Queueing theory, birth-death processes, embedded Markov chains, finite and infinite waiting room systems, single and multi-server queues, general service distributions; Markov decision processes; reliability.

MAT 570. Simulation (3) Prerequisite: MAT/STT 565. Study of computer simulation of discrete and continuous random processes. Generation of pseudo-random variables, discrete event simulation, simulation design, simulation languages, statistical analysis of simulation output. Applications to modeling stochastic systems in computer science, engineering, and operations research.

MAT 581. (481) Introduction to Mathematical Logic (3) Prerequisite: Permission of department. The formal study of truth and provability. Propositional calculus; predicate calculus. Godel's completeness theorem, applications to formal number theory and incompleteness. Additional topics chosen from areas such as undecidability or nonstandard analysis.

MAT 582. Set Theory (3) Prerequisite: MAT 581. An account of contemporary set theory. The Zermelo-Fraenkel axioms, ordinals and cardinals, models of set theory. The concepts of large cardinals, constructibility and the independence results.

MAT 592. Advanced Topics in Mathematics (3) Prerequisite: Consent of instructor. Advanced topics of current interest in pure and applied mathematics not covered in existing courses.

MAT 595. Research Seminar (2) Prerequisite: Consent of instructor. Designed to give the student experience in locating and learning mathematics outside the classroom setting. Use of the major mathematics journals, professional society publications and standard references including Mathematical Reviews. The nature of research in the mathematical sciences and research methodology.

MAT 599. Thesis (1-6)

COMPUTER SCIENCE

CSC 504. (MAT 504) Advanced Discrete Structures (3) Prerequisite: CSC 231 or consent of instructor. Survey of the mathematical foundations of Computer Science. Mathematical logic, set theory, algebraic structures, lattices and Boolean algebra, graph theory, introduction to computability theory.

CSC 507. Advanced Data Structures (3) Prerequisite: CSC 332. Study of data structures and their applications. Design and analysis of algorithms, data types, trees, operations on sets, advanced set-representation methods, directed and undirected graphs, sorting, data structures and algorithms for external storage, memory management.

CSC 509. (MAT 509) Design and Analysis of Algorithms (3) Prerequisite: CSC 332. Theory of the design of efficient computer algorithms. Algorithms for sorting, searching, matrix operations, fast Fourier transforms, pattern matching, polynomial arithmetic and operations on graphs. Additional topics selected from NP-completeness, recursion, data structure selection and complexity.

CSC 525. (425) (MAT 525/425) Numerical Analysis (3) Prerequisite: Undergraduate linear algebra, differential equations, and elementary numerical methods. Introduction to the theoretical foundations of numerical algorithms. Solution of linear systems by direct methods; least squares, minimax, and spline approximation; polynomial interpolation; numerical integration and differentiation; solution of nonlinear equations; initial value problems in ordinary differential equations. Error analysis. Certain algorithms are selected for programming.

CSC 575. Computer Graphics (3) Prerequisite: CSC/MAT 525. Techniques and applications of computer graphics. Basic point-plotting techniques, line-drawing displays, two-dimensional geometric transformations, algorithms for clipping and windowing, simple graphics packages. Input devices and techniques for interactive graphics, raster graphics, three-dimensional graphics, graphics systems.

CSC 592. Topics in Computing (3) Prerequisite: Consent of instructor. Topics in computing of current interest not covered in existing courses.

STATISTICS

STT 505. Data Analysis (3) Prerequisite: STT 362. Introduction to exploratory data analysis. Use of stem and leaf plots, boxplots. Transformations of data, resistant lines, analysis of two-way tables, residual analysis. Comparison of robust/resistant methods with standard statistical techniques.

STT 510. (410) Applied Statistical Methods (3) Prerequisite: Any statistics course. After a review of elementary statistics, the following major areas are studied: non-parametric methods; analysis of variance and experimental design, and regression analysis.

STT 530. (430) Introduction to Non-parametric Statistics (3) Prerequisite: STT 362. Theory and methods of non-parametric statistics in the one- and two- sample problems and their comparisons with standard parametric procedures. Non-parametric tests for comparing more than two samples; tests of randomness and independence.

STT 540. (440) Linear Models and Regression Analysis (3) Prerequisite: STT 362. Theoretical introduction to the general linear model and its application to simple linear regression and multiple regression. Estimation and hypothesis testing of model coefficients; residual analysis; analysis of covariance.

STT 565. (465)(MAT 565/465) Applied Probability (3) Prerequisite: STT 362. The formulation, analysis and interpretation of probabilistic models. Selected topics in probability theory. Conditioning, Markov chains, and Poisson processes. Additional topics chosen from renewal theory, queueing theory, Gaussian processes, Brownian motion, and elementary stochastic differential equations.

STT 566-567. (466-467) Mathematical Statistics (3-3) Prerequisite: STT 362. A rigorous introduction to mathematical statistics. Univariate and multivariate probability distributions; conditional and marginal distributions; theory of estimation and hypothesis testing; limiting distributions and the central limit theorem; sufficient statistics and the exponential class of probability density functions.

STT 568. (MAT 568) Stochastic Processes in Applied Mathematics (3) Prerequisite: MAT/STT 565. Probabilistic models with applications in the sciences and engineering. Markov processes, diffusion, stochastic differential equations.

STT 569. (MAT 569) Stochastic Processes in Operations Research (3) Prerequisite: MAT/STT 565. Probabilistic models with applications in operations research. Queueing theory, birth-death processes, embedded Markov chains, finite and infinite waiting room systems, single and multi-server queues, general service distributions; Markov decision processes; reliability.

STT 592. Topics in Statistics (3) Prerequisite: Consent of instructor. Topics in statistics of current interest not covered in existing courses.

THE CAMERON SCHOOL OF BUSINESS ADMINISTRATION

MASTER OF BUSINESS ADMINISTRATION

The Cameron School of Business Administration offers a program of study leading to a Master of Business Administration degree for any qualified holder of a bachelor's degree from an accredited college or university regardless of undergraduate field of study. The program's objective is the development of the broadly educated professional manager.

Admissions Requirements

Applicants seeking admission to the graduate program in Business Administration are required to submit the following to the Graduate School:

1. An application for graduate admission
2. Official copies of transcripts of all college work (undergraduate and graduate)
3. Official scores on the Graduate Management Admission Test (GMAT)
4. Three recommendations including one from an employer or supervisor who can comment on the applicant's work experience and potential for successful completion of a master's program.

A strong overall academic average, a total score of 1,000 or more based on the formula: 200 times the upper division grade point average (4.0 systems) plus the GMAT score, and at least one year of appropriate full-time work experience are minimum requirements for graduate admission. However, admission decisions are based upon several factors; and if other indicators of success are evident, individuals who fall below the established criterion in one of the areas may be considered for admission.

Degree Requirements

1. 54 semester credit hours of approved graduate credit must be satisfactorily completed for the degree. This number of credit hours may be reduced for students who qualify for and are granted certain course waivers. Petitions for waiver are submitted to the Dean of the Cameron School of Business Administration upon acceptance for admission into the program. Despite the number of waivers granted, a minimum of 42 semester hours of graduate study must be completed. Up to 6 hours of graduate study may be accepted as transfer from an accredited college or university. However, the last 36 hours of graduate study must be completed at The University of North Carolina at Wilmington.

2. The student must satisfy a minimal mathematics requirement in calculus. This requirement may be satisfied by completing MAT 151, its equivalent, or by passing the Advanced Placement Test (AB) in calculus.

3. The student must successfully complete a qualifying examination consisting of a oral comprehensive examination.

4. Each student must complete the approved course of study within five years of the date of first registration for graduate study.

Course Requirements for the Master of Business Administration Degree

Students with undergraduate or graduate work in business administration may have the program of study reduced through waivers for certain courses. Students with no prior work in business administration will be required to take the following program.

A. Core Requirements (24 semester hours)

The following courses comprise the core of knowledge essential to a basic understanding of modern business and managerial practice. These courses must be completed by each student unless evidence of substantial academic work in such courses at the undergraduate

r graduate level is presented. Requirements may be waived on a course-by-course basis by ne MBA Advisory Committee subject to approval of the Dean of the Cameron School of Business Administration.

ACG 501	Financial Accounting (3)
ECN 520	Economic Analysis I (3)
PDS 513	Quantitative Methods (3)
PDS 518	Management Information Systems (3)
BLA 560	Legal Environment and Business Regulation (3)
MGT 550	Organization Theory and Behavior (3)
FIN 535	Managerial Finance (3)
MKT 540	Marketing Management (3)

B. Professional Competence and Integrative Applications (24 semester hours)

In addition to the Core Requirements, the following courses develop depth and breadth f knowledge and provide analytical skills for practical application.

ACG 502	Managerial Accounting (3)
ECN 521	Economic Analysis II (3)
MGT 555	Practice of Management (3)
PDS 517	Production/Operations Management (3)
MGT 565	Current Issues in Business (1-1-1)
MGT 595	Corporate Policy and Strategy (3)
FIN 536	Financial Policy (3)
MKT 546	Strategic Marketing (3)

C. Electives (6 semester hours)

Candidates will strengthen their knowledge and sharpen their skills in particular areas by king at least two courses from the elective areas: Accountancy, Economics, Management, arketing, Finance, Production and Decision Sciences.

GRADUATE PROGRAM IN BUSINESS ADMINISTRATION

Course Descriptions

ACCOUNTANCY

CG 501. Financial Accounting (3) An intensive course in accounting principles with special emphasis on the concepts underlying income determination, preparation and interpretation of financial statements and the managerial uses of accounting information. Topics include transaction analysis, asset valuation and expense recognition, capital structure and tools of financial analysis.

CG 502. Managerial Accounting (3) Prerequisite: ACG 501. Interpretation and use of accounting information in the planning, coordination and controlling of business activities. Topics include cost behavior, manufacturing and distribution cost-volume-profit relationships; effects of taxation and price level changes on business decisions; budgeting and responsibility accounting. Case studies emphasized.

CG 503. Advanced Managerial Accounting (3) Prerequisite: ACG 502. An in-depth study of cost concepts appropriate for decision-making and of the budgetary procedures used in planning and control. Emphasis is placed on relating recent advances in the quantitative and behavioral sciences to the role of the contemporary managerial accountant. Case analysis is emphasized.

ACG 506. Current Issues in Financial Accounting (3) Prerequisite: ACG 501. Advanced study of the principles and theory underlying the preparation of financial statements. Consideration is given to the problems related to pension plans, long-term leasing arrangements, refunding of bonds outstanding, allocation of income taxes, changing price levels, and other controversial issues. Utilizes text, authoritative statements, and articles from the current literature.

ACG 508. Taxation and Business Decisions (3) Prerequisite: ACG 502. The accounting and managerial effects of taxation upon decisions, policies, and procedures in the planning, organization, and operation of a business enterprise. Areas covered include the taxing process; taxation of individuals, corporations and fiduciaries; investment incentives; capital gains and losses; tax shelters; and tax planning. Problems and case analysis are used.

ACG 565. Current Issues in Business (1-1-1) (see MGT 565.)

ACG 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

BUSINESS LAW

BLA 560. Legal Environment and Business Regulation (3) A study of the management process and how it is influenced by the constitutional, legislative, judicial, regulatory, administrative, and social forces exerted on the business and social environment.

BLA 565. Current Issues in Business (1-1-1) (See MGT 565.)

BLA 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

MANAGEMENT

MGT 550. Organization Theory and Behavior (3) Study of historical, theoretical and practical foundations for understanding organizational structure, behavior and performance. Emphasis on problem solving issues and applications in design, leadership, motivation and interpersonal communications.

MGT 555. Practice of Management (3) Prerequisite: BLA 560 and MGT 550. Major problems and decision areas confronting middle and upper-level managers. Topics include long-range planning, management by objectives, project management, leadership style, and performance appraisal. Case analysis is used to foster application of current managerial techniques to the analysis, solution, and prevention of organizational problems.

MGT 556. Personnel and Labor Relations (3) Prerequisite: MGT 550. A study of manpower planning, training and development, job analysis, employee evaluation, labor legislation, and the collective bargaining process. This course is designed to foster a managerial understanding of the management of human resources rather than a technical orientation.

MGT 558. Organizational Behavior (3) Prerequisite: MGT 550. An examination of the persistent human problems in organizations including motivation, resistance to change,

interpersonal and intergroup conflict, managing superior/subordinate relations. This course incorporates ideas from the behavioral sciences to provide a foundation for identifying and solving the human side of an organization's operations. Case studies are emphasized.

MGT 565. **Current Issues in Business (1-1-1)** Current and emerging issues which affect and are affected by business. Topics focus on three major categories:(1) International Business; (2) Communications and Technology; and (3) Business Trends and Developments. At least three (3) hours are required and each candidate must include at least one (1) hour in each of the above categories.

MGT 591. **Directed Individual Study (1-3)** Prerequisite: Consent of the MBA Coordinator.

MGT 595. **Corporate Policy and Strategy (3)** Prerequisite: To be taken in the final year of the candidate's program of study. An integrative course focusing on factors considered by top-level executives in formulating both short-term and long-term corporate strategy. Particular attention is directed toward analysis of business trends, development of corporate strengths, and formulation of policies and plans. Involves extensive use of case analysis.

ECONOMICS

ECN 520. **Economic Analysis I (3)** Prerequisite: The mathematics of calculus. Economic analysis of demand, cost, resource allocation, and decision making in alternative market structures. The impact of fiscal and monetary policy on the decision making process is also examined and analyzed.

ECN 521. **Economic Analysis II (3)** Prerequisite: ECN 520 and PDS 513. An examination of the economic environment in which businesses make decisions. Topics include monetary and fiscal policy as they affect the availability and cost of funds and the effect of government regulation and tax policy on firm investment decisions. Particular attention is paid to the factors affecting current and future inflation, national output, and to business decision making in an integrated world-wide economy.

ECN 526. **International Trade and Finance (3)** Prerequisite: ECN 520 and FIN 535. A study of the principles underlying world trade, exchange rate adjustments, balance of payments analysis, international financial markets, direct foreign investment, the international monetary system and the new international economic order. Discusses U.S. commercial policy, transnational corporations, international joint ventures, economic integration, preferential treatment and world-wide trading practices.

ECN 565. **Current Issues in Business (1-1-1)** (see MGT 565.)

ECN 591. **Directed Individual Study (1-3)** Prerequisite: Consent of the MBA Coordinator.

FINANCE

FIN 535. **Managerial Finance (3)** Prerequisite: ACG 501 and ECN 520. Financial decision-making in the modern business organization. Topics include the acquisition and use of funds, capital budgeting, cost of capital, capital asset pricing, portfolio analysis and financial statement analysis. Case studies emphasized.

FIN 536. Financial Policy (3) Prerequisite: FIN 535. Conceptual foundations for a theory of financial management, the structure of major areas of financial management and the theoretical content and validity of formalized techniques for improving decision making in the areas of capital budgeting, capital structure, cost of capital, dividend policy and mergers. Case studies are used to supplement the conceptual foundations. Emphasis on the policy decisions and how they affect the valuation of the firm.

FIN 537. Financial Institutions and Markets (3) Prerequisite: ECN 520 and FIN 535. Financial institutions as suppliers of funds to the money and capital markets. Comparative financial policies and portfolio considerations of institutions in the context of their changing market environments. The impact of the economic and regulatory climate on portfolio adjustments are also examined. Cases will be used extensively.

FIN 538. Investments and Portfolio Analysis (3) Prerequisite: FIN 535. Analysis of financial assets as appropriate investment alternatives. Analysis and evaluation of securities and portfolio management. Securities market information and theories of security selection are examined.

FIN 565. Current Issues in Business (1-1-1) (See MGT 565.)

FIN 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

MARKETING

MKT 540. Marketing Management (3) An examination of the major factors to be considered in the analysis, development, and control of marketing programs. Particular attention is directed to decisions concerning product service offering, price strategy, promotional methods, and the channels of distribution. Emphasis is placed on the role that marketing plays in the overall operation of the firm.

MKT 546. Strategic Marketing (3) Prerequisite: MKT 540. Major factors considered are setting marketing objectives, identifying market opportunities, selecting target markets, developing new products, formulating integrated marketing strategies, and solving marketing problems. Case analysis is used extensively to foster the application of marketing models and techniques to improve organizational performance.

MKT 548. Promotional Management (3) Prerequisite: MKT 545. Theories and practices of advertising, sales management, and sales promotion as they relate to the total marketing effort. Attention is directed to sales forecasting, media analysis, and the criteria for evaluating the results of the integrated marketing program. Case study is emphasized.

MKT 549. Marketing Research and Analysis (3) Prerequisite: PDS 513 and MKT 540. An examination of methods of gathering, processing, and analyzing information from the marketplace. Topics covered include problem identification, research design, primary and secondary sources of data, methods of data collection, scaling methods, and sampling techniques. Particular attention is directed to data generation methods and improving marketing decision-making.

MKT 565. Current Issues in Business (1-1-1) (See MGT 565.)

MKT 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

PRODUCTION AND DECISION SCIENCES

PDS 513. Quantitative Methods (3) Prerequisite: Completion of mathematics through calculus. Techniques for the analysis of business data. Topics include descriptive and inferential statistical methods, probability theory, and linear programming.

PDS 514. Advanced Quantitative Methods (3) Prerequisite: PDS 513. Quantitative techniques for the solution of business problems. Topics include mathematical programming, simulation, queuing theory, network theory, and game theory. Emphasizes the mathematical formulation and solution of problems using a computer.

PDS 517. Production/Operations Management (3) Prerequisite: PDS 513 and MGT 550. Techniques to aid the operations manager in making key decisions during the initial, online, and control stages of production. Topics include product and process design; facility size, location and layout; demand forecasting; production and work force planning; quality control; and facilities maintenance. Formulation of problems for solution by the computer is an integral part of the courses.

PDS 518. Management Information Systems (3) A study of the process of analyzing, designing, and implementing computer based systems which have information as their product. Minicomputer and microcomputer projects provide opportunities for comparing concepts with actual systems. An introduction to the BASIC programming language and orientation on the VAX minicomputer system are integral parts of the course.

PDS 519. Advanced Business Statistics (3) Prerequisite: PDS 513. Advanced statistical applications used to support the business decision making process. Topics include multiple linear regression, nonlinear regression, time series analysis, experimental design, decision theory, and non-parametric statistics.

PDS 565. Current Issues in Business (1-1-1) (See MGT 565.)

PDS 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

SCHOOL OF EDUCATION

MASTER OF EDUCATION

The School of Education offers four master's degree programs in professional education: (1) a Master of Education program in Elementary Education, (2) a Master of Education program in Reading Education, (3) a Master of Education program in Special Education, and (4) a Master of Education program in Educational Administration and Supervision with tracks in Educational Administration and Supervision.

Admission Requirements

Applicants seeking admission to a graduate program in Education are required to submit the following to the Graduate School:

1. An application for graduate admission
2. Official copies of transcripts of all college work (undergraduate and graduate)
3. Official scores on the Miller Analogies Test
4. Three recommendations by individuals in relevant professional fields

A score of 40 on the Miller Analogies Test and a grade average of B in the undergraduate major are minimum requirements for graduate admission. However, admissions decisions are based upon several factors, and where other indicators of success warrant, individuals who fall below the established criterion in one of the areas may be considered for admission.

In addition to the general requirements, applicants to the program in Elementary Education are required to hold, or be qualified to hold, North Carolina "A" teacher certification in Early Childhood Education, Intermediate Education, or Middle Grades Education. Applicants to the program in Special Education are required to hold or be qualified to hold North Carolina Class "A" special education teacher certification in at least one area of exceptionality and are required to have taken at least one course in mental retardation, one course in learning disabilities, and one course in emotional disturbance. Applicants to the Educational Administration and Supervision and Reading programs are required to hold, or be qualified to hold North Carolina Class "A" elementary, middle grades or secondary teacher certification.

Under exceptional circumstances, individuals who do not hold the specified teaching credential may be admitted. Such exceptions may be made in cases of otherwise qualified applicants who are engaged in relevant professional roles not requiring teacher certification and who may profit professionally from the type of advanced study offered at this institution. Examples of applicants for whom exception is appropriate may include community college administrators and teachers. In such instances, the programs may be modified appropriately. Individuals admitted under such exceptions are not qualified, however, upon completion of the graduate program for the institution's recommendation for North Carolina Board of Education instructional or administrative certification.

Students who seek professional improvement but do not intend to pursue a degree may register for graduate courses through procedures established for Non-degree Students.

Degree Requirements
Elementary Education

The program leading to the Master of Education in Elementary Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification in Early Childhood Education (K-4), or Intermediate Education (4-6). Within the program, specialties are offered in Early Childhood Education or Intermediate Education. The 36 semester hour program is comprised of 15 semester hours of

conceptual and technical studies common to both specialties, 15 semester hours in the area of specialization, and 6 semester hours of electives.

Based upon the view of the professional as a decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies and "tracks" in which the specific information needs are addressed.

I. Elementary Core

EDN 500	Human Development and Learning (3)
EDN 502	The School as a Social System (3)
EDN 520	Instructional Development (3)
EDN 523	Research in Education (3)
EDN 530	Curriculum (3)

II. Early Childhood Education Track

EDN 501	Language Development (3)
EDN 531	Study of Teaching in Early Childhood Education (3)
*EDN 535	Diagnosis and Teaching of Reading/Language Arts (3)
EDN 542	The Teaching of Mathematics (3)

Elect one of the following two:

EDN 543	The Teaching of Social Studies (3) or
EDN 544	Teaching of Science in the Elementary Schools (3) Electives Six (6) semester hours.
EDN 599	Thesis, may be selected (6 semester hours)

III. Intermediate Education Track

A. Common Requirements

*EDN 536	Teaching Reading in the Content Areas (3)
EDN 549	Middle School Education (3)

B. Concentration (Select "1" or "2" or "3" below)

1. Language Arts Concentration (Required of teachers with Class "A" Language Arts Concentration)

EDN 537	Linguistics for Teachers (3)
	Six (6) semester hours elected from the following:
EDN 501	Language Development (3)
EDN 534	Teaching Developmental Reading (3)
*EDN 535	Diagnosis and Teaching of Reading/Language Arts (3)
EDN 538	Teaching of Writing (3)
EDN 539	Children's Literature (3)
EDN 540	Adolescent Literature (3)
EDN 547	Integrating Language Arts and Reading: Classroom Practice (3)

2. Math/Science Concentration

Select three (3) courses, two from one area—either math or science.

EDN 542	The Teaching of Mathematics (3)
EDN 544	Teaching of Science in the Elementary School (3)
*EDN 546	Diagnosis and Remediation in Mathematics (3)
EDN 548	Inquiry—The Method of Science (3)

3. Interdisciplinary Concentration

Select three (3) courses among the following in Elementary Instruction representing three (3) of the following content areas: Language Arts, Social Studies, Mathematics, Science.

EDN 501 Language Development (3)
EDN 534 Teaching Developmental Reading (3)
*EDN 535 Diagnosis and Teaching in Reading/Language Arts (3)
EDN 537 Linguistics for Teachers (3)
EDN 538 Teaching of Writing (3)
EDN 539 Children's Literature (3)
EDN 540 Adolescent Literature (3)
EDN 542 The Teaching of Mathematics (3)
EDN 543 The Teaching of Social Studies (3)
EDN 544 Teaching Science in the Elementary School (3)
*EDN 546 Diagnosis and Remediation in Mathematics (3)
EDN 547 Integrating Language Arts and Reading: Classroom Practice (3)
EDN 548 Inquiry—The Method of Science (3)

C. Electives, Six (6) semester hours

EDN 599 Thesis, may be selected (6 semester hours)

*Field-based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed through the required course, Research in Education. A comprehensive examination will be required.

Reading Education

The program leading to the Master of Education in Reading Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification.

The 36 semester hour program is comprised of 12 semester hours of conceptual and technical studies, 18 semester hours in the area of specialization, and 6 semester hours of controlled electives.

Based upon the view of the professional as decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific practice.

Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies, and a reading specialization with related language arts options.

I. Reading Education Core

EDN 500 Human Development and Learning (3)
EDN 523 Research in Education (3)
EDN 525 Tests, Measures and Measurement in Education (3)
EDN 530 Curriculum (3)

II. Concentration

A. Group I (3 hours)

Select one: EDN 501, Language Development (3)
EDN 537 Linguistics for Teachers (3)

B. Group 2 (15 hours)
EDN 505 The Reading Process (3)
*EDN 534 Teaching Developmental Reading (3)
*EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
*EDN 536 Teaching Reading in the Content Areas (3)
*EDN 572 Practicum in Reading (3)

C. Group 3 (6 selected hours)
EDN 538 The Teaching of Writing (3)
EDN 539 Children's Literature (3)
EDN 540 Adolescent Literature (3)
EDN 545 Black Literature and Resources for Teachers (3)
*EDN 547 Integrating Language Arts and Reading: Classroom Practice (3)
EDN 559 Adult Literacy (3)
*EDN 573 The Disabled Reader (3)
EDN 599 Thesis (6)

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed in the required course, Research in Education. A comprehensive examination will be required.

Applicants who do not hold North Carolina Class "A" teacher certification may be admitted. In such cases, the specified undergraduate courses necessary for education certification will be required in addition to the graduate courses.

*Field based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

Special Education

The program leading to the Master of Education in Special Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification in Special Education in at least one area of exceptionality. The program is cross categorical in nature with emphasis in three areas of the mildly handicapped; mental retardation, learning disabilities, and emotionally handicapped. The 36 semester hour program is comprised of 15 semester hours of conceptual and technical studies, 15 semester hours in the area of specialization, and 6 semester hours of controlled electives.

Based upon the view of the professional as a decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies, and a concentration in special education.

I. Special Education Core
EDN 501 Language Development (3)
EDN 503 Exceptional Child Development (3)
EDN 511 Organizational Behavior (3)
EDN 523 Research in Education (3)
EDN 530 Curriculum (3)

II. Concentration (21 hours)
A. Group 1 (15 hours)
EDN 524 Consultation Strategies for Teachers of Exceptional Children (3)

*EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
*EDN 546 Diagnosis and Remediation in Mathematics (3)
EDN 552 Program Development for the Mildly Handicapped (3)
EDN 553 Classroom Management of Mildly Handicapped Children (3)
*EDN 574 Practicum in Special Education (3)

B. Group 2 (3 selected hours)
EDN 504 Issues and Trends in Special Education (3)
EDN 554 Educating Young Handicapped Children (3)
EDN 555 The Mildly Handicapped Adolescent (3)
EDN 591 Independent Study (3)
EDN 595 Selected Topics in Education (related to exceptional children) (3)
EDN 599 Thesis, may be selected (6)

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed through the required course, Research in Education. A comprehensive examination will be required.

Students who are accepted provisionally (without at least one course in mental retardation, one course in learning disabilities, and one course in emotional disturbance) will need to take these courses before receiving the Master's degree.

*Field-based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

Educational Administration and Supervision

The Master of Education program in Educational Administration and Supervision provides educational leadership training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification. Within the program, specialties are offered leading to certification for the professional roles of principal or curriculum-instruction specialist. The 33 semester hour program is comprised of 15 semester hours of conceptual and technical studies common to both specialties, 12 semester hours in the area of specialization, and 6 semester hours of electives.

Based upon the view of the professional as a decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies and "tracks" in which the specific information needs are addressed.

I. Administration-Supervision Core
EDN 502 School as a Social System (3)
EDN 510 Organization and Control of American Education (3)
EDN 511 Organizational Behavior (3)
EDN 521 Decision-Making (3)
EDN 523 Research in Education (3)

II. Administrative Track
EDN 512 Legal Structures in Education (3)
EDN 560 Personnel Administration (3)
*EDN 561 Leadership Application (3)
*EDN 570 Internship in Educational Administration (3)
Electives, Six (6) semester hours

III. Supervision Track
EDN 500 Human Development and Learning (3)
*EDN 520 Instructional Development (3)
*EDN 530 Curriculum (3)
*EDN 571 Internship in Educational Supervision (3)
Electives, Six (6) semester hours

*Field-based activities will be required in this course. Such activities will be cooperatively esigned and supervised by University and field personnel.

No language requirement is stipulated. Competency in appropriate inquiry procedures will e developed through the required courses, EDN 521, Decision Making, and EDN 523, esearch in Education. A comprehensive examination will be required.

ASTER OF ARTS IN TEACHING

The School of Education offers a program of study leading to the Master of Arts in Teaching egree. This program is comprised of a core of professional studies designed to enhance the structional decision-making skills of secondary teachers and a specialization track designed enhance knowledge of subject matter, structure of the disciplines, and the appropriate odes of inquiry. The program seeks to address the continuing commitment to strengthen e University's contribution to the improvement of educational service to the clients of ementary and secondary schools in southeastern North Carolina through the Master of Arts Teaching for secondary teachers in the following specialties: Biology, Chemistry, English, istory, and Mathematics.

The Master of Arts in Teaching program provides advanced academic and professional udy and training for individuals holding or qualified to hold North Carolina Class secondary acher certification in one of the academic specialty fields included in the program. Within e program, academic specialties are offered in Biology, Chemistry, English, History and athematics. The program is comprised of 36 semester hours, 12 in professional education s specified below, and 24 in the academic specialty:

dmission Requirements

Applicants seeking admission to the Master of Arts in Teaching program are required to ubmit the following to the Graduate School:

1. An application for graduate admission
2. Official transcripts of all college work (undergraduate and graduate)
3. Official scores on the Graduate Record Examination
4. Three recommendations by individuals in professionally relevant fields

A combined score of 1000 on the verbal and quantitative portions of the Graduate Record xamination plus where required by the corresponding M.A. and M.S. program, applicants to e Master of Arts in Teaching program will be required to submit scores on the relevant ecialty portion of the Graduate Record Examination; a bachelor's degree from an accredited llege or university in this country or its equivalent in a foreign institution based on a four-year ogram; an overall academic average of "B" or better in the basic courses prerequisite to the ea of proposed graduate study; and hold or be qualified to hold North Carolina initial teacher rtification in the area of proposed study.

egree Requirements

1. The program requires a minimum of 36 semester hours, with 12 prescribed in professional ducation and 24 in the area of academic specialization. A maximum of 6 semester hours of

credit may be transferred from another accredited institution. Grades on transfer work mus be equivalent to "B" or better. A minimum of 24 semester hours of graduate study must be completed in residence.

2. A written comprehensive examination addressing both the professional core and the academic specialty will be required.

3. The program shall be completed within 5 years of the date of first registration for graduate study.

I. Professional Core

EDN 500	Human Development and Learning (3)
EDN 520	Instructional Development (3)
EDN 523	Research in Education (3)
EDN 565	Curriculum and Instruction in Secondary Subjects (3)

II. Academic Track

A. Biology

Twenty-four semester hours are required. Of this number, 3 are common to all students and 21 will be selected in consultation with the program advisement committee. The commor requirements are:

BIO 501	Introduction to Scientific Research and Presentation (1)
BIO 593	Colloquium (1)
BIO 595	Seminar (1)

B. Chemistry

Twenty-four semester hours are required. Of this number, 5 are common to all students and nineteen will be selected in consultation with the program advisement committee. Withir the latter category, a maximum of 6 semster hours may be selected from other disciplines ir the natural and mathematical sciences. The common requirements are:

CHM 501	Introduction to Chemical Research (1)
CHM 591	Directed Individual Study (Chemical Research) (3)
CHM 595	Graduate Seminar (1)

C. English

Twenty-four semester hours are required. Of this number, 18 are specified among four areas, and 6 may be selected in consultation with the program advisement committee. The common requirements are:

ENG 501	Introduction to Research Methods in English (3)
ENG 502	Introduction to Literary and Writing Theory (3)
ENG 520	Linguistics (3)
ENG 572	Literary Theory and Criticism (3)

In addition, all students will select at least two courses in the study of literature, which may include EDN 545, Black Literature and Resources for Teachers (3). Students will utilize the remaining 6 semester hours to extend one of three areas of interest: linguistics, writing, and literature.

D. History

Twenty-four semester hours are required in the following pattern:

HST 500 Historiography and Methodology (3) A 12 semester hour concentration, including seminar and colloquium in one of the following areas:

American history
European history
Non-western history

Six to nine semester hours selected from the two remaining concentration areas. Three mester hours may be selected from another social science or humanities discipline, but may t be included in the concentration. The program shall also meet the following additional con-aints: Two additional seminar or colloquium courses. Two post-1900 courses, at least one which must be in the concentration area.

E. Mathematics

Twenty-four semester hours are required. Of this number, 12 are common to all students d twelve will be selected in consultation with the program advisement committee. The mmon requirements are:

MAT 511-512	Real Analysis I, II
MAT 541-542	Modern Algebra I, II

GRADUATE PROGRAM IN EDUCATION

Course Descriptions

N 500. Human Development and Learning (3) Designed to provide foundations for decision-making in teaching and education, this course will focus on patterns of physical and social development and on types of learning. Activities will include analysis, discussion, and application.

N 501. Language Development (3) Focus on the development of language and its relation to cognitive processes in young children. Theories of language learning and growth are explored in terms of patterns of evidence and in terms of implications for decision-making affecting school children. Concepts associated with language structure, functions, and processes are developed. A variety of language and language-education topics are explored.

N 502. The School as a Social System (3) Designed to develop competency in the analysis of social effects upon behavior within the school, this course will include an examination of role, value, power, and control systems within schools and how these systems relate to the changing functions of the family and work place. This information will be related to current issues in the educational system, such as compulsory attendance, level of control, biculturalism, etc.

N 503. Exceptional Child Development (3) Prerequisite: EDN 501. Designed to provide and understanding of the intellectual, emotional, and physical development of exceptional children. The interplay of biological and environmental factors that produce deviations in development is examined. Organized around a developmental approach to the study of exceptionality that suggests strategies for determining bases of exceptionality. Implications of development differences for the special educator will be stressed.

N 504. Issues and Trends in Special Education (3) Designed to focus on emerging directions related to the education of exceptional children. Relevant social, educational,

bio-medical, developmental, psychological, and legal issues will be examined as we as implications for the schools.

EDN 505. The Reading Process (3) Prerequisite: EDN 523, 525, or consent of the instructo Develops conceptualization of the process of reading in mature readers and of stage in literary development. Analysis of psychomotor and psycholinguistic parameters c reading, word recognition and sentence processing both for begining and advance readers, the task of learning to read, factors affecting reading development, and c schema theories of comprehension.

EDN 510. Organization and Control of American Education (3) Designed to include study of the roles of agencies involved in the governance of education, sources c finance and supportive services. Activities will include lectures, simulated exercise and an opportunity to participate in field activities.

EDN 511. Organizational Behavior (3) Designed to develop competency in the analysis c behavior in educational organizations, this course will include an examination of orgar izational theory with particular attention to the utility of social systems theory as a basi for effective educational leadership. A variety of activities including simulation and cas studies will be used to demonstrate application in school settings.

EDN 512. Legal Structures in Education (3) Prerequisite: EDN 510 or approval c department. Designed to (1) to develop knowledge of constitutional, statutory, and cas law related to education and knowledge of state and local governmental structures an to develop skills and abilities in analysis and design of educational practices fc consistency with established legal principles. The course content will include a stud of the U.S. and N.C. constitutions, selected state and federal court cases, the N.C system of educators, federal statutes related to education, and the structures of loca governments. Activities will include lecture, discussion, library research, and group an individual analysis of existing school system practices and design of legally-consister practices.

EDN 520. Instructional Development (3) Designed to provide students with the knowledg and skill required for designing and evaluating instructional plans, units, and educa tional programs. This course will include concern for such topics as types of learning learning hierarchies, task analysis, educational goal and objective formulation, assess ing learner entry skills, and evaluation. The course will include a variety of activities wit a strong emphasis on group problem solving and individual projects. Students wi undertake projects relevant to their in-school experience.

EDN 521. Decision-Making (3) Prerequisite: EDN 510 or approval of department. Designe to develop knowledge, skills, and abilities in identification and analysis of decisio situations and decision alternatives, in procedures for choice, and in design an analysis of educational information system. Contents will include study of alternativ decision-making models, procedures for choice, evaluation of educational programs and educational information systems. The activities will include lecture, discussion, an simulated and real applications to decision situations in schools systems.

EDN 522. Educational Media (3) Designed to provide students with the theory and practica skills necessary for selecting, producing, and evaluating mediated materials in educa tion. Students will learn to produce a variety of audio-visual materials including graphics

transparencies, slides, video-tapes. In addition, there will be considerable emphasis on photography including developing and printing. Instruction in operating and troubleshooting equipment will also be treated. The primary goal of this course is to develop confidence and competency in the media area. This course will include lectures and a workshop format. Students will produce a variety of mediated projects during the course.

ON 523. Research in Education (3) Designed to develop research competencies required for interpretation and critique of research report and for design and conduct of research for educational decision-making. Contents will include measurement, problem identification and analysis, research design, selected statistical analysis procedures, data interpretation and reporting and research critique. Activities will include lecture, discussion, research critique, simulated and actual proposal development, simulated report development, and computer analysis of actual data.

ON 524. Consultation Strategies for Teachers of Exceptional Children (3) Designed to develop communication skills relevant for the decision-making roles of the special education teacher. Emphasis on group dynamics, conflict resolution, generation of alternative solutions, interview procedures, parent conferences, team meetings, orientation of general educators, and mainstreaming handicapped children.

ON 525. Tests, Measures, and Measurement in Education (3) Prerequisite: EDN 201, EDN 520, or approval of instructor. Design to develop a conceptual framework for obtaining and interpreting data about behavioral and psychological traits of persons which may be needed for a variety of purposes. Particular attention will be given to developing understanding of validity of measures for the intended purposes and for assessing the trait which is intended to be measured. Students will learn to make judgments of validity of testing systems and, to develop valid tests and testing systems. Mathematical and statistical tools for analyzing items, tests, and scores will be studied, and students will practice their use. Students will learn to use computers for test development, test administration, and to analyze records of performance on tests.

N 530. Curriculum (3) Develops a conceptual framework for understanding curriculum in relation to other aspects of educational systems. Students learn to evaluate curricula in terms of structural elements, underlying value orientations, and assumptions about subject matter and about learning. Introduction to issues of curriculum change, implementation, evaluation, development, and design.

N 531. Study of Teaching in Early Childhood Education (3) Prerequisites: EDN 500, 501, 502, 520, or department approval. Designed to improve teaching performance and to develop competencies in the critical analysis of teaching in the early grades, this course will include an in-depth study of teaching in the early grades by observation and participation using different interaction analysis formats for studying and analyzing teaching.

N 532. Comparative Studies in Early Childhood Education (3) Prerequisite: EDN 502 or approval of department. Designed to provide information for comparing and contrasting preschools from an international perspective, this course will include an in-depth cross-cultural survey of early childhood education in selected countries. The history of philosophical thoughts, the political and socio-economic changes and research efforts from these selected countries of interest to American early childhood educators will be studied and discussed.

EDN 533. Early Childhood Education in Focus (3) Prerequisite: EDN 500, 501, 502, or approved of department. Designed to develop the ability to look to current trends and issues in early childhood education. Objectively, this course will include critical analysis of present exemplary programs, practices, resources, and legislation related to early childhood education. The student will be involved in identifying unresolved issues in early childhood education and writing position papers about these issues.

EDN 534. Teaching Developmental Reading (3) Develops understandings of an effective classroom reading program. Reviews practices, materials, and approaches for teaching basic reading skills through the analysis of research literature and critique of personal beliefs and practices.

EDN 535. Diagnosis and Teaching of Reading/Language Arts (3) Prerequisite: EDN 501 and 530. Designed for the elementary and reading teacher, this course focuses on building the skills and understanding needed to become a diagnostic teacher. In addition to the review of skills sequences in reading/language arts, the student will study a variety of diagnostic material and techniques which will strengthen knowledge about the skills in the selection of appropriate materials, techniques and methods in teaching. Development of informal tests as well as experiences in actual diagnosis will be required.

EDN 536. Teaching Reading in the Content Area (3) Designed for the middle grades teacher of math, science, social studies, and English, this course will identify those skills of reading needed in all content areas as well as those specific to each content area. Emphasis will be placed on the study of strategies useful in teaching reading in the content area classroom. Besides the study of appropriate commercial materials, students will be required to develop their own materials useful for teaching reading in a particular content area.

EDN 537. Linguistics for Teachers (3) A study of current American English and of the principles of scientific analysis of spoken and written language; emphasis on understanding that nature and structure of the language that students bring into the classroom.

EDN 538. The Teaching of Writing (3) Intensive review of principles of grammar, rhetoric and usage (approximately 1/2 of course), followed by projects using and evaluating actual samples (both expository and creative) from school-age writers; attention also to methods of instruction and to the range, usefulness and availability of classroom materials.

EDN 539. Children's Literature (3) Prerequisite: EDN 500, 501, 502, 520, or approval from department. Designed to develop skills and understanding which would improve teachers' competencies in formulating sound literature programs, this course will include an in-depth study of the functions of children's literature and the different criteria for evaluation of the various types of literature suitable for children at various developmental levels. Areas of influence that are producing change such as paperbacks, minorities in children's books, sexism and censorship will be discussed.

EDN 540. Adolescent Literature (3) A comprehensive study of literature appropriate for the middle grades, its value in the school curriculum and its importance in fulfilling intellectual, emotional, and cultural needs of young people. Evaluation and bibliography

are emphasized; classroom techniques and the use of related material are covered. Projects related to instructional preparation and student activities are required.

N 542. The Teaching of Mathematics (3) Prerequisite: EDN 500 and 530. Focus on materials and methods for teaching mathematics in grades K-9, with emphasis on the logical, psychological, and sociological foundations of mathematics education. A survey of curricula appropriate at the K-9 level. Library research in current topics related to the teaching of mathematics.

N 543. The Teaching of Social Studies (3) Prerequisite: EDN 500, 501, 530. Special emphasis is given to the various techniques and methods to be used in the teaching of social studies. Teaching strategies including simulation, injury and value clarification will be explored through research, observation, demonstration, and, when applicable, field trips. Each student will prepare a major unit of study which will require both individual and group participation.

N 544. Teaching of Science in the Elementary School (3) To assure that science at the elementary school level is taught from a theoretical and conceptual base, content will include studying theories and concepts related to science taught at the elementary school level. Activities will include development of successful methods of teaching through the use of individual and group projects. Opportunities will be provided to field test methods proposed. Materials needed for a successful science program and sources from which these materials may be secured will be discussed.

N 545. Black Literature and Resources for Teachers (3) A survey of Black literature, including the examination of material published for classroom use in the public schools and the authors who have made contributions to this field.

N 546. Diagnosis and Remediation in Mathematics (3) Prerequisite: EDN 500, 530, and 542. The study and application of teaching mathematics in the diagnostic mode. Included will be a historical review of diagnostic procedures in mathematics, a survey of mathematics curriculum, an examination of the theoretical models of diagnosis and of materials useful to the classroom teacher or clinician. Intensive work with children experiencing difficulty in mathematics will be required.

N 547. Integrating Language Arts and Reading: Classroom Practice (3) Develops student ability to conceptualize and implement a classroom communication arts program. Analyzes patterns of learning and practices in teaching language arts processes and skills. Examines strategies for fostering language arts growth through integrated language activities. Field activity required.

N 548. Inquiry — The Method of Science (3) The course assumes initial level competency in the curriculum and methods of science. The course will focus on the conceptualization of and rationale for using the inquiry method of teaching science. Students will participate in activities taken from a variety of science curriculum programs for elementary through senior high school. The course will also provide students with an opportunity to acquire and practice the skills needed to utilize the inquiry method and to guide scientific investigations at K-12 levels. Methodology and types of activities appropriate to the student's level of teaching will be selected.

EDN 549. Middle School Education (3) Prerequisite: EDN 500 and 502. EDN 530 recommended. Study of educational programs for upper elementary education (junio high, middle school, intermediate school). Review of learning, physical, and socia characteristics of "transescents" and historical and current approaches to their educa tion. Comparison and contrast of curriculum, instruction, administrative and organiza tional features of exemplary and typical intermediate, middle and junior high schools

EDN 550. Nature and Needs of Exceptional Children (3) This course is designed to provide a comprehensive survey of the major categories of exceptional children. Emphasis wil be on characteristics, etiology, educational procedures, and psycho-social implica tions. Activities will include lecture, discussion, and practical applications of concepts and strategies. This course is only open to elementary majors and administration supervision majors.

EDN 552. Program Development for Mildly Handicapped (3) Prerequisite: EDN 502 and 530. Designed to develop an understanding of how to develop and teach relevan curriculum to handicapped children through systematic instruction. Focus on charac teristics and etiology, assessment, planning, implementation of instructional plans, and selection and utilization of appropriate methods and materials for a wide range o curricular areas.

EDN 553. Classroom Management of Mildly Handicapped Children (3) Designed to develop knowledge and skills, necessary for planning and implementing various classroom management strategies. Focus on observation and measurement o behaviors, design of classroom management strategies, utilization of strategies in the special education and regular classroom environment.

EDN 554. Educating Young Handicapped Children (3) Overview of early childhood education for the handicapped. Trends toward early identification of handicapping conditions and appropriate intervention strategies will be examined. Methods for dealing with developmental delays in regular and special preschool settings will be studied. Working with parents and primary caretakers of young handicapped children will be emphasized.

EDN 555. The Mildly Handicapped Adolescent (3) Designed to provide a basis for understanding the educational needs of mildly handicapped adolescents. The following topics will be covered during the course: the impact of handicapping conditions on the developmental tasks of adolescence; strategies for the remediation of deficits in basic skills; the interrelationship of vocational intervention; the current status of educational programs for the mildly handicapped.

EDN 559. Adult Literacy (3) Examines the definition of illiteracy and the problem of adult literacy. Reviews approaches to dealing with the problem from philosophic, pedagogical, and sociological bases. Reviews the many movements to overcome the problem in the United States and abroad. Provides students with ideas, methods, and materials for teaching adults to read.

EDN 560. Personnel Administration (3) Prerequisite: EDN 502, 510, 511, 521, or approval of department. Designed to develop knowledge, skills, and abilities in specification and analysis of roles and role performance, and in selection, supervision, and utilization of personnel resources. The contents will include educational roles, criteria

for role performance, personnel selection criteria and procedures, personnel policies and practices, and labor relations. Activities will include lecture, discussion, analysis and design of simulated and actual personnel procedures, and a variety of simulated personnel related tasks.

EDN 561. Leadership Applications (3) Prerequisite: EDN 502, 510, 511, 521, or approval of department. Designed to develop skills and abilities in analysis, initiation, establishment, and maintenance of specific educational procedures. The contents will include specific procedures for scheduling, office management, pupil control, co-curricular program design and management, curricular program design an management, communications, information systems, and budgeting. Activities will include lecture, discussion, visitation, simulated and actual applications, and selected practicum experiences.

EDN 562. Automation in Administrative and Instructional Practices (3) Prerequisite: EDN 510 or approval of department. Designed to develop knowledge, skills, and abilities required for decision-making about automation of procedures and for design and implementation of automated procedures. The content will include a study of alternative procedures for automation, including computer applications and specific procedures for personnel accounting, scheduling, planning, instruction, and information management. Activities will include lecture, discussion, and a variety of simulated and real design, analysis, and production problems.

EDN 563. Educational Environments (3) Prerequisite: EDN 502, 510, 511, or approval of department. Designed to develop knowledge, skills, and abilities in the analysis, design, and change of physical and social environments in education. Contents will include design, organization, control, and effects of physical and social climates of schools and classrooms. Activities will include lecture, discussion, library research, and a variety of group and individual simulated and real design and analysis problems.

EDN 564. Politics and Policy-Making in Education (3) Designed to study the theories, processes, functions, limits, alternatives, goals, and consequences of policy-making as the primary objective of politics in education; evaluation and analysis of policy-making at the local, state and federal levels of education; nature and dynamics of policy-making by local and state school boards, state legislatures and the federal government.

EDN 565. Curriculum and Instruction in Secondary Subjects (3) Prerequisite: EDN 500, 520, 523 or approval of department. Designed to develop curriculum and instructional skills in the content areas, the course will address generic skills and applications within specific content areas. The student will demonstrate planning and presentation skills in a supervised practicum.

EDN 570. Internship in Educational Administration (3) Designed to provide experience related to major aspects of the role of principal. Observation will be made of principals and assistant principals and reports written based on these observations and literature reviews. The major emphasis of the internship will be upon the human resources management aspects of the principal's role in task areas such as staff development, supervision and evaluation, community relations and student development. Additional topics of investigation will include such administrative task areas as budget development, budget allocation, fiscal management, reporting and instructional scheduling. Students with experience in the role of principal or assistant principal may request waiver of this course requirement.

EDN 571. Internship in Educational Supervision (3) Designed to provide experiences related to major aspects of the role of supervisor. Observations will be made of supervisors and reports written based on these observations and literature reviews. The major emphasis of the internship will be upon the human resources management aspects of the supervisor's role in task areas such as staff development, teacher relations, principle relations, and relations with outside consultants. Additional topics of investigation will include such supervisory task areas as program planning, curriculum review, budget development, budget allocations, fiscal management, and reporting. Students with experience in the role of supervisor may request waiver of this course requirement.

EDN 572. Practicum in Reading (3) Prerequisite: EDN 535. Designated to provide a supervised practicum for the diagnosis and remediation of typical disabled readers. Students will administer diagnostic tests, plan a remediation program, remediate a remedial reader, and generate an educational report of the reading program, results and prognosis. Consultation with appropriate school, agency, and family members is expected.

EDN 573. The Disabled Reader (3) Prerequisite: EDN 535, 572. Designed to develop competence and performance in testing teaching, and designing reading/learning programs for the severely disabled reader. Appropriate referral services will be identified. Consultation skills will be developed. Supervised practicum required.

EDN 574. Practicum in Special Education (3) Designed to provide a supervised internship in a cross-categorical special education setting. Provides experiences in diagnosing individual needs, developing educational programs, instructing mildly handicapped students, designing and implementing classroom management techniques, and consulting with teachers, administrators, parents and other professionals.

EDN 591. Independent Study (3) Prerequisite: Fifteen semester hours of graduate credit and permission of instructor. Intensive study of topic in the student's area of specialization.

EDN 594. Seminar in Education (1) Designed to assist the elementary reading or special education graduate student in identifying and synthesizing ideas within and across courses and formulating reasoned responses to contemporary educational questions.

EDN 595. Special Topics in Education (1-4) Seminars of varying duration and credit may be arranged for the study of special topics relevant to student needs not served by established graduate courses. Seminars of this nature may be offered only upon approval of the Dean of the Graduate School. A maximum of six semester credit hours may be counted toward degree requirements.

EDN 599. Thesis in Education (1-6) Prerequisite: EDN 523, at least 18 additional hours toward master's degree, and permission of instructor. Intensive study of topic selected by student and approval by thesis committee. Includes definition of problem, review of related literature, application of appropriate methodology, and interpretation of results and conclusions. Oral presentation and defense of thesis required.

FACULTY

FACULTY

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*emeritus status

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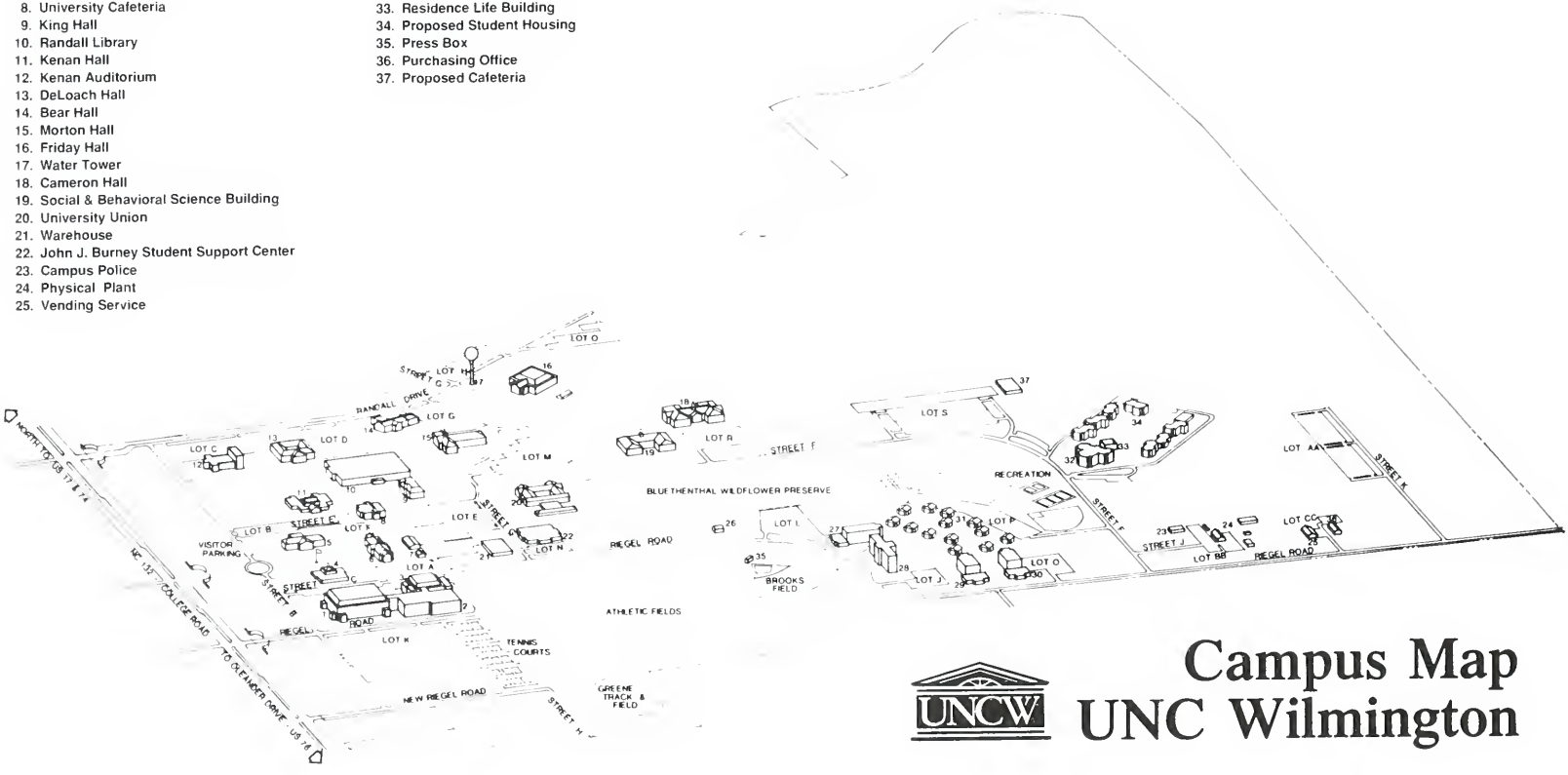
NOTES

LEGEND

1. Trask Coliseum
2. Natatorium
3. Hanover Hall Gymnasium
4. James Hall
5. Alderman Hall
6. Hoggard Hall
7. R.O.T.C.
8. University Cafeteria
9. King Hall
10. Randall Library
11. Kenan Hall
12. Kenan Auditorium
13. DeLoach Hall
14. Bear Hall
15. Morton Hall
16. Friday Hall
17. Water Tower
18. Cameron Hall
19. Social & Behavioral Science Building
20. University Union
21. Warehouse
22. John J. Burney Student Support Center
23. Campus Police
24. Physical Plant
25. Vending Service
26. Field House
27. Belk Hall
28. Galloway Hall
29. Graham Hall
30. Hewlett Hall
31. University Apartments
32. B.D. Schwartz Hall
33. Residence Life Building
34. Proposed Student Housing
35. Press Box
36. Purchasing Office
37. Proposed Cafeteria



Campus Map
UNC Wilmington

UNCW
The University of North Carolina
at Wilmington
Wilmington, N.C. 28403-3297

FOURTH
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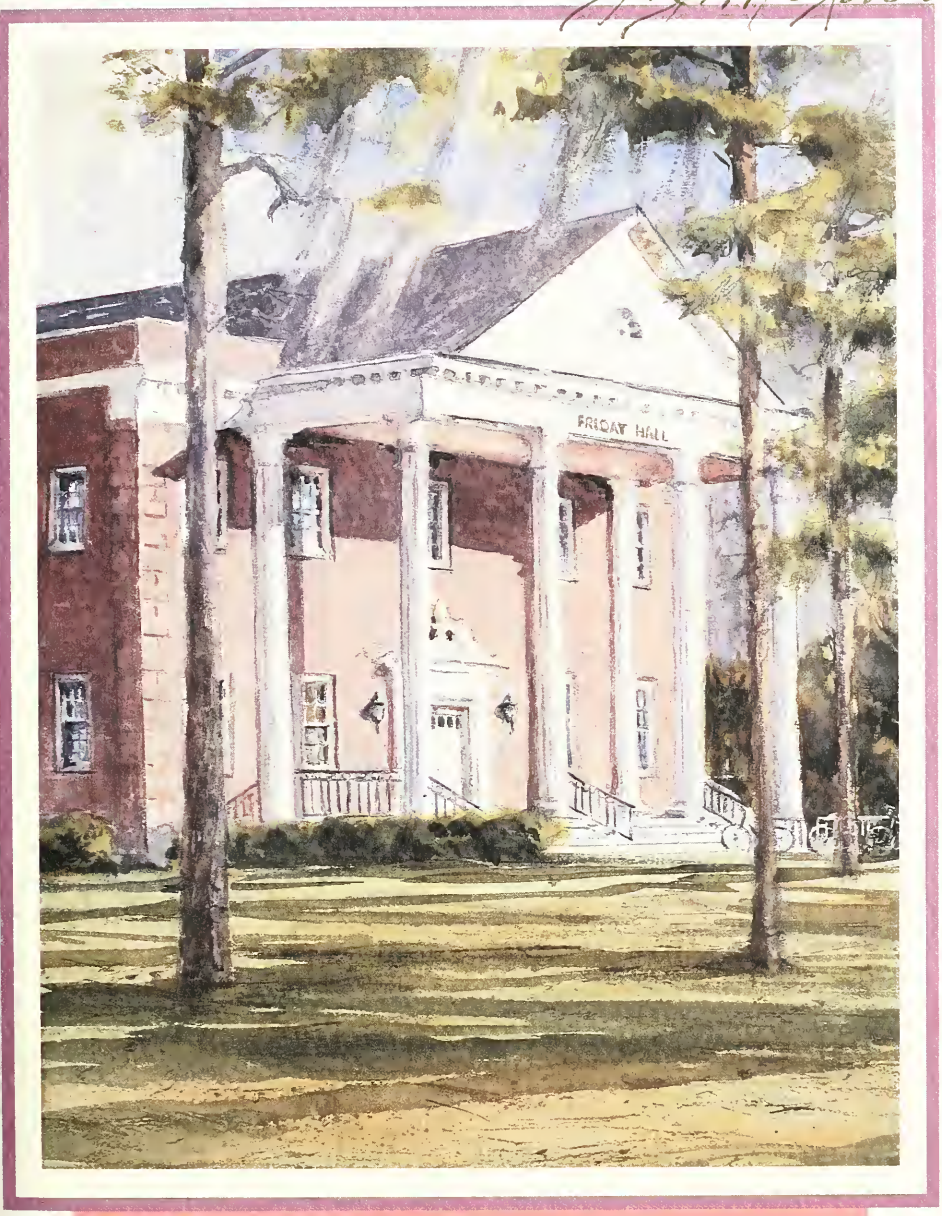
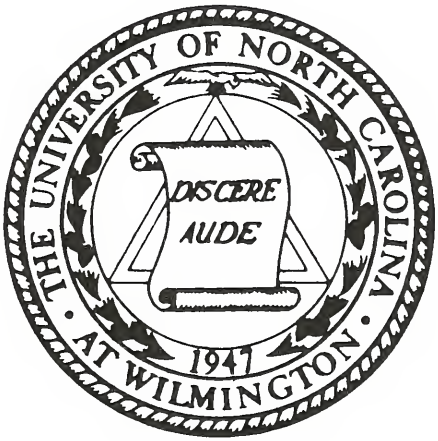


The University of North Carolina at Wilmington

Undergraduate Catalogue
1990-1991

The University of North Carolina at Wilmington

UNDERGRADUATE CATALOGUE



1990-1991
Bulletin 42

ne University of North Carolina at Wilmington is committed to equality of educational opportunity nd does not discriminate against applicants, students, or employees based on race, color, national rigin, religion, sex, age, or handicap. Moreover, The University of North Carolina at Wilmington is pen to people of all races and actively seeks to promote racial integration by recruiting and enrolling larger number of black students.

over: Friday Hall by Wilmington, NC artist Gladys Going Faris, who received her degree in art from the University of Georgia. She s exhibited in solo and in group shows where her work has won awards.

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A separate graduate catalogue is available in the Graduate School.

All provisions, regulations, degree programs, course listings, etc., in effect when this catalogue went to press are subject to revision by the appropriate governing bodies of The University of North Carolina at Wilmington.

12,500 copies of this public document were printed at a cost of $15,779.00 or $1.26 pe
copy (G.S. 143-170.1)

F. D. Fensel
Chairman
Board of Trustees

It is my pleasure, on behalf of the Board of Trustees, to welcome each of you to The University of North Carolina at Wilmington. Most of you have experienced one, two or three years with us, so you already have a fairly good sense of direction and knowledge of what an excellent education you can achieve at this outstanding university.

For some of you, however, this is your first year in a period of your life that you will never forget. It will be a time for building friendships that will last a lifetime. The next four years will open up vast avenues of knowledge which you can take advantage of to form a basis for a productive and fulfilling life.

Again, welcome to the campus of The University of North Carolina at Wilmington.

Sincerely,

F. P. Fensel
Chairman of the Board of Trustees

Dr. William H. Wagoner
Chancellor

It is with a great deal of pleasure that I welcome each of you to The University of North Carolina at Wilmington. You will find that this is a friendly community of scholars, and I believe you will enjoy being a part of it as much as I do.

This campus is one of the fastest growing campuses in the university system, and we are proud of our accomplishments over the years.

The programs offered by the university are designed to serve a broad spectrum of interests in the liberal arts and sciences. The undergraduate instruction and research opportunities are provided in fine arts, humanities, natural and social sciences, teacher education and other professional disciplines. Preprofessional programs in medicine, pharmacy, engineering, forestry, dentistry, agriculture and law are also offered. Strong programs in the fine arts include studio art, drama and applied music.

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We welcome you to "UNC by the Sea"—a very special place!!

Sincerely,

William H. Wagoner
Chancellor

1990

January

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CALENDAR OF EVENTS*
1990-91

Fall Semester, 1990

August 13, Monday	Academic year begins
August 19, Sunday	On-campus housing opens
August 20-21, Monday-Tuesday	Orientation and advising
August 22, Wednesday	Registration
August 23, Thursday	Classes begin
August 29, Wednesday	Last day to add a class or drop without a grade
September 3, Monday	Labor Day Holiday
September 13, Thursday	Faculty meeting
October 3, Wednesday	Last day to withdraw with W - undergraduate students
October 10, Wednesday	Fall vacation begins 10:30 p.m.
October 15, Monday	Fall vacation ends 8:00 a.m.
October 25, Thursday	Graduation application deadline, Spring 1991
November 9, Friday	Last day to withdraw with a WP - graduate students
November 20, Tuesday	Thanksgiving vacation begins 10:30 p.m.
November 26, Monday	Thanksgiving vacation ends 8:00 a.m.
December 7, Friday	Last day of classes
December 8, Saturday	Reading Day
December 10-15, Monday-Saturday	Final examinations
December 17-18, Monday-Tuesday	Final examinations
December 18, Tuesday	Fall semester ends/on-campus housing closes

Spring Semester, 1991

January 2, Wednesday	On-campus housing opens
January 3, Thursday	Orientation and advising; Spring semester begins
January 4, Friday	Registration
January 7, Monday	Classes begin
January 11, Friday	Last day to add a class or drop without a grade
January 21, Monday	Martin Luther King Holiday
February 15, Friday	Last day to withdraw with W - undergraduate students
March 1, Friday	Spring vacation begins 10:30 p.m.
March 11, Monday	Spring vacation ends 8:00 a.m.
March 15, Friday	Graduate application deadline, Summer 1991
March 26, Tuesday	Last day to withdraw with WP - graduate students
March 28, Thursday	Easter vacation begins 10:30 p.m.
April 1, Monday	Easter vacation ends 8:00 a.m.
April 4, Thursday	Faculty meeting
April 24, Wednesday	Last day of classes
April 25, Thursday	Reading Day
April 26-27, Friday-Saturday	Final examinations
April 29-May 4, Monday-Saturday	Final examinations
May 4, Saturday	Spring semester ends/on-campus housing closes
May 11, Saturday	Commencement, academic year ends

Summer Session, 1st, 1991

May 16, Thursday	On-campus housing opens
May 17, Friday	Registration
May 20, Monday	Classes begin
May 21, Tuesday	Last day for registration
May 22, Wednesday	Last day to withdraw without a grade
May 29, Wednesday	Last day to withdraw with W - undergraduate students
June 7, Friday	Last day to withdraw with WP - graduate students
June 18, Tuesday	Last day of classes
June 19, Wednesday	Final examinations; term ends

Summer Session, 2nd, 1991

June 23, Sunday	On-campus housing opens
June 24, Monday	Registration
June 25, Tuesday	Classes begin
June 26, Wednesday	Last day for registration
June 27, Thursday	Last day to withdraw without a grade
June 28, Friday	Graduation application deadline, Fall 1991
July 4, Thursday	Independence Day Holiday
July 5, Friday	Last day to withdraw with W - undergraduate students
July 16, Tuesday	Last day to withdraw with WP - graduate students
July 25, Thursday	Last day of classes
July 26, Friday	Final examinations; term ends

*Calendar may be adjusted due to state legislative action.

CALENDAR OF EVENTS*
1991-1992

Fall Semester, 1991

August 12, Monday	Academic year begins
August 17, Saturday	On-campus housing opens
August 19-20, Monday-Tuesday	Orientation and advising
August 21, Wednesday	Registration
August 22, Thursday	Classes begin
August 28, Wednesday	Last day to add a class or drop without a grade
September 2, Monday	Labor Day Holiday
September 12, Thursday	Faculty Meeting
October 2, Wednesday	Last day to withdraw with W - undergraduate students
October 9, Wednesday	Fall vacation begins 10:30 p.m.
October 14, Monday	Fall vacation ends 8:00 a.m.
October 24, Thursday	Graduation application deadline, Spring 1992
November 8, Friday	Last day to withdraw with WP - graduate students
November 26, Tuesday	Thanksgiving vacation begins 10:30 p.m.
December 2, Monday	Thanksgiving vacation ends 8:00 a.m.
December 6, Friday	Last day of classes
December 7, Saturday	Reading day
December 9-14, Monday-Saturday	Final examinations
December 16-17, Monday-Tuesday	Final examinations
December 17, Tuesday	Fall semester ends/on-campus housing closes

Spring Semester, 1992

January 8, Wednesday	On-campus housing opens
January 9, Thursday	Orientation and advising; Spring semester begins
January 10, Friday	Registration
January 13, Monday	Classes begin
January 17, Friday	Last day to add a class or drop without grade
January 20, Monday	Martin Luther King Holiday
February 21, Friday	Last day to withdraw with W - undergraduate students
February 28, Friday	Spring vacation begins at 10:30 p.m.
March 9, Monday	Spring vacation ends at 8:00 a.m.
March 13, Friday	Graduation application deadline, Summer 1992
March 31, Tuesday	Last day to withdraw with WP - graduate students
April 9, Thursday	Faculty meeting
April 16, Thursday	Easter vacation begins 10:30 p.m.
April 20, Monday	Easter vacation ends 8:00 a.m.
April 29, Wednesday	Last day of classes
April 30, Thursday	Reading Day
May 1-2, Friday-Saturday	Final examinations
May 4-9, Monday-Saturday	Final examinations
May 9, Saturday	Spring semester ends/on-campus housing closes
May 16, Saturday	Commencement, academic year ends

Summer Session, 1st, 1992

May 21, Thursday	On-campus housing opens
May 22, Friday	Registration
May 25, Monday	Classes begin
May 26, Tuesday	Last day for registration
May 27, Wednesday	Last day to withdraw without a grade
June 3, Wednesday	Last day to withdraw with a W - undergraduate students
June 12, Friday	Last day to withdraw with a WP - graduate student
June 19, Friday	Graduation application deadline, Fall 1992
June 23, Tuesday	Last day of classes
June 24, Wednesday	Final examinations/term ends

Summer Session, 2nd, 1992

June 28, Sunday	On-campus housing opens
June 29, Monday	Registration
June 30, Tuesday	Classes begin
July 1, Wednesday	Last day for registration
July 2, Thursday	Last day to withdraw without a grade
July 6, Monday	Independence Day Holiday
July 10, Friday	Last day to withdraw with W - undergraduate students
July 21, Tuesday	Last day to withdraw with WP - graduate students
July 30, Thursday	Last day of classes
July 31, Friday	Final examinations/term ends

*Calendar may be adjusted due to state legislative action

ADMINISTRATIVE OFFICERS OF THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

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George E. Bair, Ph.D. ..... *Special Assistant to the Chancellor*
Paul B. Eaglin, J.D. ..... *Special Assistant for Legal Affairs*

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James K. McGowan, Ph.D. ..... *Associate Vice Chancellor for Academic Affairs*
Paul E. Hosier, Ph.D. ..... *Assistant Vice Chancellor for Academic Affairs*
David K. Miller, Ph.D. .. *Assistant Vice Chancellor for Academic Affairs and Director of Summer Sessions*
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Norman R. Kaylor, Ph.D. ..... *Dean, Cameron School of Business Administration*
Roy E. Harkin, Ph.D. ..... *Dean, School of Education*
Marlene M. Rosenkoetter, Ph.D. ..... *Dean, School of Nursing*
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Eugene W. Huguelet, M.L.S. ..... *Director of Library Services*
John J. Manock, Ph.D. ..... *Director of Research Administration*
James C. Edmundson, Ed.D. ..... *Director of Special Programs*
Dorothy P. Marshall, B.S. ..... *Registrar*
Diane M. Zeeman, M.A. ..... *Director of Undergraduate Admissions*

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William R. Calloway, M.P.A. ..... *Director of Personnel Services*
Roger E. Fry, B.S.C.E., P.E. ..... *Director of Physical Plant Services*
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LeRoy Oakley, III, B.S., C.P.A. ..... *Director of Systems and Budget*
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John M. Geddie ..... *Director of Safety*
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Li-Shing Wang, M.A. ..... *Director of Student Life Studies*
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Michael U. Affemann, Ph.D. ..... *Acting Director of Student Development Services*
Linda Moore, M.Ed. ..... *Director of University Union*
Kathleen Jewell, M.D. ..... *Director of Student Health and Wellness Center*
James C. Braye, M.S. ..... *Director of Career Planning and Placement*

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M. Tyrone Rowell, M.A. ..... *Associate Vice Chancellor for University Advancement*
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Howard R. Lipman, B.S. ..... *Executive Director of Resources Development*
Renee R. Brantley, A.B.J. ..... *Director of Publications*

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Ralph H. Parker, M.Ed. ..... *Director of Minority Affairs*
George E. Bair, Ph.D. ..... *Compliance Officer*

The University

THE UNIVERSITY OF NORTH CAROLINA

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Raymond H. Dawson, B.A., M.A., Ph.D. ..... *Vice President-Academic Affair*
Roy Carroll, B.A., M.A., Ph.D. ..... *Vice President-Planning*
Nathan F. Simms, Jr., B.S., M.S., Ph.D. ..... *Vice President-Student Services an Special Program*
L. Felix Joyner, A.B. ..... *Vice President-Financ*
Jasper D. Memory, B.S., Ph.D. ..... *Vice President-Research and Public Servic*
Wyndham Robertson, A.B. ..... *Vice President-Communication*
Jay M. Robinson, B.S., M.A., Ed.D. ..... *Vice President-Public Affair*
David G. Martin, B.A., LL.B. ..... *Secretary of the Universit*
Richard H. Robinson, Jr., A.B., LL.B. ..... *Assistant to the Presider*
John W. Dunlop, B.A. ..... *Director, The University of North Carolina Center fo Public Televisio*

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Asa T. Spaulding, Jr., Vice Chairman
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W. Travis Porter
J. Aaron Prevost
Louis T. Randolph
Joseph E. Thomas
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Class of 1993

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Walter R. Davis
Charles Z. Flack, Jr.
John A. Garwood
R. Philip Haire
Wallace N. Hyde
Reginald F. McCoy
Martha F. McNair
D. Samuel Neill
Ellen S. Newbold
Maxine H. O'Kelley
Maceo A. Sloan
Asa T. Spaulding, Jr.
Harold H. Webb
Ruth Dial Woods

Members Emeriti

Philip G. Carson
William A. Dees, Jr.
William A. Johnson

IISTORY OF THE UNIVERSITY

The University of North Carolina is comprised of all the public institutions of higher ducation in North Carolina that confer degrees at the baccalaureate level or higher. ne university was authorized by the State Constitution in 1776, and it was chartered in 789 by the General Assembly.

The University of North Carolina opened its doors to students at Chapel Hill in 1795. nereafter, beginning in the latter part of the nineteenth century, the General Assembly North Carolina has established and supported fifteen other public senior institutions in eeping with Article IX, Section 8, of the Constitution of North Carolina which provides that e "General Assembly shall maintain a public system of higher education, comprising the niversity of North Carolina and such other institutions of higher education as the General ssembly may deem wise."

By 1969, The University of North Carolina included six constituent institutions, governed y a single Board of Trustees. This multi-campus university had its beginnings in legislation nacted in 1931 that defined The University of North Carolina to include The University of orth Carolina at Chapel Hill, North Carolina State University at Raleigh, and The University North Carolina at Greensboro. In the 1960's three additional campuses were added: The niversity of North Carolina at Charlotte, The University of North Carolina at Asheville, and ne University of North Carolina at Wilmington.

Beginning in 1877, the General Assembly of North Carolina established or acquired ten dditional separately governed state-supported senior institutions of higher education. ney are: Appalachian State University, East Carolina University, Elizabeth City State niversity, Fayetteville State University, North Carolina Agricultural and Technical State niversity, North Carolina Central University, North Carolina School of the Arts, Pembroke tate University, Western Carolina University and Winston-Salem State University. Then, 1971, the General Assembly redefined The University of North Carolina, and under the rms of that legislation all sixteen public senior institutions became constituent institutions The University of North Carolina.

The constitutionally authorized Board of Trustees of the six-campus University of North arolina was designated the Board of Governors and this body is by law The University North Carolina. The Board of Governors consists of thirty-two members elected by the eneral Assembly, and it is charged with "the general determination, control, supervision, anagement and governance of all affairs of the constituent institutions." The chief execu- ve officer of the university is the president. Each constituent institution of the university has s own faculty and student body. The chief administrative officer of each institution is the nancellor and the chancellors are responsible to the president.

Each constituent institution also has a board of trustees composed of thirteen members: ght elected by the Board of Governors, four appointed by the governor, and the elected resident of the student body ex officio. (The School of the Arts has two additional ex- fficio trustees.) The principal powers of these institutional boards are exercised under a elegation of authority from the Board of Governors.

BOARD OF TRUSTEES
THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

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Class of 1991
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THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

The University of North Carolina at Wilmington was founded in 1947 as Wilmington C lege, a locally supported and governed institution, to provide the youth and adults of N Hanover County and southeastern North Carolina an opportunity for two years of univer parallel study, semiprofessional training and vocational-technical education at moder expense. From these beginnings and goals and through a series of transformations v ever-widening programs and aspirations, in 1969 it became a constituent institution of T University of North Carolina, whose purpose, resources, and direction it shares.

The University of North Carolina at Wilmington is a community of scholars dedicatec teaching, learning, creating, and extending knowledge through research. Its objectives to stimulate curiosity, imagination, and creativity; to communicate both general knowlec and the facts and concepts particular to various disciplines and professional programs foster clear thinking, rational decision-making, and fluent, accurate communication; anc develop skills appropriate to the various disciplines and professional programs.

The programs offered by the university include four-year programs leading to the Ba elor of Arts and Bachelor of Science degrees within the College of Arts and Sciences, Cameron School of Business Administration, the School of Education, and the Schoo Nursing; graduate programs leading to the Master of Business Administration, Maste Education, Master of Arts in Teaching, Master of Science in biology, chemistry, geolo mathematical sciences and marine biology, and the Master of Arts degrees in Engli history and mathematical sciences; a variety of preprofessional programs; and spec programs in a variety of areas, including marine science research, Army ROTC and c tinuing education. The university's recent development has made possible increasin diverse contributions, some of international significance. Its aim is to continue and improve its innovative programming and comprehensive approach to meeting the wi ranging needs of the region, the state, and the larger community.

HISTORY AND BACKGROUND

Education on the college level first came to Wilmington in 1946 when a college center w established under the direction of the North Carolina College Conference and under administration of the Directorate of Extension of The University of North Carolina at Cha

ll. The center offered courses on the freshman level to some 250 students during the cademic year 1946-47. In 1947 a tax levy was approved by the citizens of New Hanover ounty, and Wilmington College was brought into existence as a county institution under e control of the New Hanover County Board of Education. In 1948 Wilmington College as officially accredited by the North Carolina College Conference and became a member the American Association of Junior Colleges. In 1952 the institution was accredited as a nior college by the Southern Association of Colleges and Schools.

In 1958 New Hanover County voted to place the college under the Community College ct of the State of North Carolina. By virtue of this vote, the college became a part of the ate system of higher education, and control passed from the New Hanover County Board Education to a board of twelve trustees, eight of whom were appointed locally and four of nom were appointed by the governor of the state. At the same time, the requirements for dmission and graduation and the general academic standards of the college came under e supervision of the North Carolina Board of Higher Education, and the college began to ceive an appropriation from the state for operating expenses in addition to the local tax.

On July 1, 1963, by an act of the General Assembly of North Carolina, Wilmington College ecame a senior college with a four-year curriculum, authorized to offer the bachelor's egree. By vote of the Board of Trustees of The University of North Carolina in late 1968, th subsequent approval by the North Carolina Board of Higher Education, and by an act the General Assembly of North Carolina in 1969, Wilmington College became, on July 1969, The University of North Carolina at Wilmington. It, and the institution in Asheville eviously designated as Asheville-Biltmore College, became the fifth and sixth campuses The University of North Carolina.

On October 30, 1971, the General Assembly in special session merged, without changing eir names, the remaining ten state-supported senior institutions into the university. Thus, e University of North Carolina now comprises 16 institutions. On August 22, 1977, The oard of Governors of The University of North Carolina authorized The University of North arolina at Wilmington to offer its first graduate programs at the master's level.

In the spring of 1985, The University of North Carolina at Wilmington was designated a omprehensive Level I University.

CADEMIC STANDING

The University of North Carolina at Wilmington is accredited by the Southern Association Colleges and Schools and the North Carolina Association of Colleges and Universities. e School of Education is accredited by the National Council for Accreditation of Teacher ducation and the School of Nursing is accredited by the National League for Nursing. e university also holds membership in the American Assembly of Collegiate Schools of usiness, the American Council on Education, the American Placement Council, and the ouncil for Advancement and Support of Education, and is on the list of schools approved the American Chemical Society.

HE FACULTY

The university seeks to attract and maintain a faculty of outstanding individuals who are apable of contributing to the enrichment of its diverse and comprehensive instructional nd research programs. Its faculty members come from all geographic sections of the nited States and several foreign countries, bringing to this campus a rich variety of ducational experiences, training and scholarship. Of the more than 366 instructional and search faculty, more than 69 percent hold doctoral degrees.

In addition to its primary responsibilities of teaching, the faculty actively engages i research and creative pursuits. Research interests are widespread in the various dis ciplines within the humanities, natural, physical, behavioral, and social sciences, an the professions. One of the major areas of interest is the marine sciences in whic extensive research is conducted in such fields as marine biology, chemical and physica oceanography, and coastal environments. Many of these research activities culminate i the publication of books and scholarly articles and presentation of papers at professiona associations, bringing acclaim to the university as well as the faculty. Certain other facult members are widely recognized for their outstanding achievements in the literary, visua and performing arts.

As an outgrowth of their professional training and/or university affiliation, UNCW facult members serve the community at large in various ways. Many participate in artistic business, educational, governmental, religious and other professional and humanitaria activities. Inasmuch as the university is dedicated to serving its total constituency, facult members are encouraged to serve in an educational, advisory or informational capacity t enhance the welfare of the community at large.

STATEMENT ON DIVERSITY IN THE UNIVERSITY COMMUNITY

In an effort to address the needs of the total university community, the chancellor ha endorsed the following statement of principle proposed by the Human Relations Advisor Committee:

As an institution of higher learning, The University of North Carolina at Wilmington rep resents a rich diversity of human beings among its faculty, staff, and students and i committed to maintaining a campus environment that values that diversity.

Accordingly, the university supports policies, curricula and co-curricular activities tha encourage understanding of an appreciation for all members of its community and wi not tolerate any harassment of or disrespect for persons because of age, sex, color, race religion, creed, national origin, sexual preference, political belief or affiliation, handicap veteran status, marital status, or membership in any organization.

For more information concerning the ways that our multicultural learning community ma be nurtured and protected, contact the Human Relations Committee through the offices c the chancellor or the dean of students.

BOARD OF TRUSTEES' TEACHING EXCELLENCE AWARD

The Board of Trustees of The University of North Carolina at Wilmington, in recognitio of this institution's commitment to teaching excellence, has established the Board c Trustees' Teaching Excellence Award. Recipients of the award manifest excellence a a way of life and stand out among the faculty as persons who have made and continu to make a significant contribution to higher education through their dedication and servic to students. The award carries with it both an honor and a responsibility: it specifies member of the faculty as a person of excellence and it calls upon the person so honore to share that excellence with colleagues and students.

Recipients

1978 B. Frank Hall
1979 Frank Allen
1980 Steve Harper
1981 Gerald Shinn
1982 William F. Adcock (posthumously)
1983 Betty Jo Welch
1984 Anne B. McCrary
1985 Charles Richard Ward
1986 John H. Haley
1987 Saul Bachner
1988 C. Sue Lamb
1989 W. Lee Johnston

'HE UNCW AWARD FOR FACULTY SCHOLARSHIP

The UNCW Award for Faculty Scholarship is designed to underscore this institution's ontinuing commitment to scholarship and creative work. Recipients of the award shall tand out among the faculty as persons who have made, and continue to make, a signifi-ant contribution to the university and the academic community through their commitment o scholarship, research and creativity.

'HE FOUNDATION CHAIR

The Foundation of The University of North Carolina at Wilmington is a charitable, non-profit orporation established for the sole purpose of supporting the university. Through private lonations it supports a faculty chair, designated to assist the university in its long-range fforts concerning faculty development and recruitment. The Foundation Chair, which is urrently allocated to the various academic disciplines on a rotating basis, enables the niversity to bring to this campus renowned scholars and performing artists. In filling the hair a special effort is made to select individuals whose contributions will benefit not only he university, but also the community at large.

NOTE: For faculty directory see page 250.

THE CAMPUS

The University of North Carolina at Wilmington is located in the southeastern part of the tate on a 650-acre tract on State Highway 132 (College Road) midway between the Cape Fear River and the Atlantic Ocean. The city of Wilmington is situated on the east ank of the Cape Fear River, about 15 miles from Carolina Beach and 10 miles from Vrightsville Beach. The standard metropolitan area, of which Wilmington is a part, now has population in excess of 97,400. Several main highways lead into the city, and commercial ir service provides easy access to other metropolitan areas north, south, and west.

Ocean breezes and the nearness of the Gulf Stream give Wilmington a delightful year-ound climate, and the area's proximity to the ocean provides unlimited recreational pportunities.

The spacious well-landscaped campus was first occupied by the university in 1961. The umber of buildings has increased from three in 1961 to 66 today. There are several thletic fields and ample space for parking.

BUILDINGS

The buildings on the campus are of modified Georgian architecture. All academic buil-lings, as well as the cafeterias and residence halls, are completely air-conditioned.

Edwin A. Alderman Hall, which houses administrative offices, is named in honor of a ative Wilmingtonian who served as president of The University of North Carolina, The Jniversity of Virginia and Tulane University.

Hoggard Hall, an academic building named in honor of Dr. John T. Hoggard, second resident of Wilmington College, contains classrooms, the School of Nursing, laboratories, he computing center, special programs, and faculty and staff offices.

Kenan Hall, named in honor of the late Mrs. Sarah Graham Kenan of Wilmington, is ccupied by the Fine Arts Department. It contains classrooms, faculty offices, art and nusic studios, the music library, and electronic music studio, dramatic workshops and the .R.O. Theatre. It also contains an auditorium with seating capacity of approximately 100.

Will S. DeLoach Hall houses the departments of chemistry and physics. It is equipped with lassrooms, faculty and staff offices, teaching auditoriums, and modern, well-equipped aboratories for the physical sciences.

Friday Hall, named in honor of UNC President Emeritus William C. Friday and his wife Ida, was completed in 1974. It houses the departments of biological sciences and earth sciences and contains classrooms and laboratories.

Arnold Kimsey King Hall houses the School of Education and contains an auditorium with a seating capacity of 191, classrooms, faculty offices, and a curriculum laboratory.

Isaac Bear Hall, completed in 1972, contains classrooms, the Department of Mathematical Sciences, and the Graduate School.

Morton Hall, named for Margaret Shannon Morton, was completed in October 1978 and houses the departments of English, history, and foreign languages. The building contains classrooms, seminar rooms, and the Bryan Auditorium which seats 200.

The Social and Behavioral Sciences Building was completed in 1980. It houses the departments of psychology, philosophy and religion, political science, and sociology/anthropology, as well as some offices of the campus computing center.

Cameron Hall, occupied in 1988, houses the Cameron School of Business Administration.

The Sarah Graham Kenan Auditorium, a gift from the Sarah Graham Kenan Foundation has a seating capacity of 1,000 persons. The auditorium is also equipped for use as a theatre and contains seminar rooms for the Department of Fine Arts.

Hanover Hall and Trask Coliseum, the physical education complex, provide modern facilities for the athletic activities of all students, including a large playing floor with rollaway bleachers, a second athletic activity floor, offices, locker rooms and showers, and special gymnastic equipment.

The Raiford G. Trask Health and Physical Education Building provides the campus with a 6,000-seat coliseum as well as an olympic size swimming pool and a separate diving tank. Construction was completed in the fall of 1977.

The University Union is the "living room" of the University community. It houses a wide variety of services, student and administrative offices, while providing space for campus activities and meetings.

Hinton James Hall, named for a New Hanover County resident who was the first student to enroll at The University of North Carolina, houses the Financial Aid Office, Registrar Services, Undergraduate Admissions, Cashier, and the office of the dean of the College of Arts and Sciences.

The Burney Student Support Center opened in 1985. Centrally located adjacent to the University Union, it houses the University Bookstore, Student Health Services, Student Development Center and the Parking Office.

The university has two cafeterias: West Dining Hall opened in 1971 and East Dining Hall opened in 1989, providing space for food service for students and faculty. These facilities contain modern food service equipment which allows for many different food and catering services.

The Edmond R. Galloway Residence Hall, opened in 1971, provides housing for 400 students. The Belk Residence Hall, opened in June 1976, accommodates 200 students. The 200-student residence hall, Addison Hewlett, Jr., Hall, opened in 1978. Another residence hall for 220 students, Frederick B. Graham Hall, was occupied in the fall of 1979. In 1981 the 400-student apartment complex was completed and occupied. Schwartz Hall opened in the fall of 1985 for an additional 160 students. Suite housing for 400 students opened in the fall of 1989.

WILLIAM MADISON RANDALL LIBRARY

The William Madison Randall Library constitutes a vital instructional and research resource of The University of North Carolina at Wilmington. Named for the President Emeritus of Wilmington College, the library, recently enlarged and completely renovated, provides

eating for over 950 users and will accommodate a collection of 475,000 hardbound olumes in addition to various other collections.

The library now contains over 325,000 hardbound volumes and subscribes to some ,000 serial titles. Extensive journal backfiles are maintained in bound volumes and in nicroformat. A growing audiovisual collection containing resources in several formats is onveniently located on the first floor, and a 73-seat auditorium is equipped for various ypes of audiovisual use. Rare and unique items are housed in the Helen Hagan Rare Book Room. An online catalogue and circulation system provides easy, efficient access to most f the library's collections.

The library is a partial depository for United States government publications, and the ollection now consists of over 340,000 items. The library is a full depository for North Carolina documents. These materials are readily available to all of the library's users.

Maintaining a schedule of over 98 hours per week during the regular academic sessions, he library has established as its major goal the provision of an excellent program of ervices designed to facilitate and encourage maximum use of informational resources.

HERBERT BLUETHENTHAL MEMORIAL WILDFLOWER PRESERVE

The Herbert Bluethenthal Memorial Wildflower Preserve is a tract of approximately 10 cres set aside on the campus by the university's Board of Trustees in response to a lonation by Mrs. Herbert Bluethenthal of Wilmington. The preserve includes a wide variety f plant communities, marked trails to follow, and labeled plants to observe. It is dedicated o the preservation of the rich and varied flora of southeastern North Carolina and has een designed to provide a place of contentment and pleasure for those who enjoy and ppreciate our native plants.

COMPUTING SERVICES

General academic computing support for student course-related instruction and research s provided through both terminal access to a central facility Digital Equipment VAX mini-omputer and numerous microcomputers located throughout the campus. The central omputer facility is supplemented by several supermicrocomputers and a SEQUENT Bal-nce B8 parallel-processor system running the UNIX operating system in the Department f Mathematical Sciences; a complex of microcomputers in the Cameron School of Busi-ess Administration; and specialized use microcomputers in the areas of English, social ciences, biology and nursing.

The central VAX minicomputer operates under the VAX/VMS operating system and sup-orts such general use compilers and processors as COBOL, BASIC, PASCAL, PL/1, ORTRAN, a spreadsheet, wordprocessor, and statistical analysis and graphics packages ncluding SAS and SPSS-X and IMSL (International Mathematical Subroutine Library). Ter-hinal emulation software is available for microcomputer interface to the VAX system.

A campus-wide network provides access to the on-campus systems, as appropriate, and he Randall Library on-line public access catalog system. A variety of special equipment uch as laser printers and plotters are available for general use.

The university is connected to BITNET, a communications network of over 2,000 institu-onal and departmental computers at 375 institutions of higher education and research enters in the U.S.A., Canada, Europe and Asia. Access to BITNET is restricted and to be sed only for authorized university-related activities.

The CRAY Y-MP supercomputer located at the North Carolina Supercomputer Center, Research Triangle Park, NC will be available to faculty and graduate students with ppropriate and approved projects. Access to the supercomputer will be through the JNCW data network.

The intent is to provide all students maximum access to state-of-the-art computing. Students must establish a user account to utilize the central VAX system and must abide by the rules and policies for use of the facilities including microcomputers. A user guide to UNCW's computing facilities is available in the campus bookstore. Contact Academic Computing Services for information on academic computing facilities and services.

Admissions

ADMISSIONS

The University of North Carolina at Wilmington seeks to admit students with the intellectua ability to perform in the collegiate community. Students must have the motivation and the determination to avail themselves of the learning experiences that will be beneficial to them if they are to attain both academic and personal enrichment. As a state-supported institution, the university is aware of its obligation to provide an educational opportunity to all qualified applicants who will benefit from the program of study offered on the Wilmington campus.

Applicants may apply to enter the university at the beginning of the fall or spring semeste and at the beginning of each summer term. Applications for fall semester must be filed by May 1; applications for spring semester must be filed by November 1. Students desiring to enroll in summer school must make application prior to the summer session registration date. The academic qualifications of each applicant are carefully reviewed by admissions personnel in a conscientious effort to admit students who have the potential for further academic achievement and growth. The university does honor the College Board Application Fee Waiver form if properly signed.

Over enrollment or state budgetary constraints may require the restriction of admissions during a given year. This may require the adjustment of minimum requirements or the establishment of earlier application deadlines.

An immunization record for each newly admitted UNCW student is required by law to be on file at UNCW prior to enrollment. Students who do not enroll in the term for which they were admitted will have the offer of admission cancelled. A written request for consideration for a different term must be sent to the Office of Admissions by the application deadline date for that term.

APPLICATION DATES

A. For Freshman, Transfer, and Unclassified Applicants for Fall, 1991

1. Application complete by December 1; Decision mailed by February 15.
2. Application complete by February 15; Decision mailed by April 15.
3. Applications received/or completed after February 15, and up to May 1, wi be reviewed after April 15, on a "space available" basis. Decisions on these applications, only, will be mailed on a rolling basis.
4. **Non-refundable $25.00 tuition deposit due May 1 from all admittees intending to enroll at UNCW in the Fall, 1991.**

B. For Re-Enrolling Students for Fall, 1991

1. Apply by May 1; Decision by June 30.
2. No tuition deposit required.

C. For All Spring (January) Semester Applicants, 1992

1. Apply by November 1; Decision by December 15.
2. Tuition deposit due December 30.

D. For all Summer Session(s) Applicants, 1992

Summer Session I	Apply by May 15; Rolling Decision.
Summer Session II	Apply by June 15; Rolling Decision.

No tuition deposit—full payment due at registration.

For Permission (Visitor) Students for Summer I and Summer II Summer, 1992

Session I	Apply prior to May 15.
Summer Session II	Apply prior to June 15

No tuition deposit required from Permission/Visitor Students.

DMISSIONS-FRESHMEN

The minimum freshman requirements for consideration for admission to The University of rth Carolina at Wilmington are:

(1) Graduation from an approved or accredited high school, or a GED certificate**

(2) A satisfactory score on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT).

(3) An overall "C" average on all work attempted in grades 9-12.

(4) Four (4) course units in English, emphasizing grammar, composition, and literature;

Three (3) course units in mathematics, including:
-algebra I
-algebra II, and
-geometry, or a higher level mathematics course for which algebra is a prerequisite

Two (2) course units in social studies, including:
(1) unit in U.S. History***

Three (3) course units in science, including:
one (1) unit in a life or biological science (for example, biology)
one (1) unit in a physical science (for example, physical science, chemistry, physics)
one (1) laboratory course.

*Two (2) course units in one foreign language

*Students who meet all minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and/or 102 before they may graduate with the baccalaureate degree.
**GED candidates must have been out of school two full years since their class graduated.
***Students who do not have 1 unit in U.S. History may be admitted with a history deficiency to be made up by the end of the sophomore year.

pplication Procedure for Freshmen

Applicants are required to comply with the following:

1. Submit a completed application form by the deadline date. A $15.00 NON-EFUNDABLE application fee must accompany the application.

2. Have the secondary school officials submit an official transcript of secondary school rk or GED. The transcript must be sent directly to the Office of Admissions, The Univer-y of North Carolina at Wilmington, Wilmington, North Carolina 28403-3297.

3. Take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board the ACT of the American College Testing Program. Because of deadlines for filing plication to take the tests, arrangements must be made well in advance of the testing te so that the application is received by the testing company in time. Applicants are cepted to UNCW on the basis of their junior or senior SAT or ACT scores. For information

about the SAT, contact the secondary school guidance counselor or write or call College Board ATP, P. O. Box 592, Princeton, New Jersey 08540, (609) 771-7600. Students who live in the Western, Southwestern or Pacific Coast states should write or call College Board ATP, P. O. Box 1025, Berkeley, California 94701, (415) 849-0950. For information about the American College Testing Program, write The College Testing Program, Program Services Department, P. O. Box 168, Iowa City, Iowa 52243.

It is important that the high school transcript, or GED, and test scores reach the university by the application deadline date so that all matters relating to the application may be complete before the opening of the semester in which the student expects to enroll.

ADMISSIONS-TRANSFER STUDENTS

Students wishing to transfer to The University of North Carolina at Wilmington from another institution must meet the following requirements for admission: (1) must be eligible to return to the institution last attended and (2) must have attained at least a "C" average (2.0 on 4.0 system) based on all courses attempted and on all transferable courses at all institutions attended. Transfer students with less than 24 semester hours (or 36 quarter hours) of transferable credit must also meet the freshman entrance requirements.

Students seeking admission by transfer of credits are required to have all transcripts of previous college or university work forwarded to the Office of Admissions by the registrar of each institution they have attended. Even though no transfer of credit may be involved all previous college or university work must be certified by transcripts or records of attendance. An official high school transcript or GED must also be submitted. Transfer courses will not be accepted from non-accredited schools, nor from business, trade vocational or technical schools, except by previous contractual agreement with UNCW.

Application Procedure for Transfer Students

Students wishing to transfer are required to comply with the following procedures:

1. Submit a completed application form by the application deadline date. A $15.00 NON-REFUNDABLE application fee must accompany the application.

2. Submit a completed university questionnaire. This questionnaire is included in the transfer admissions packet.

3. Have an official transcript from each college or university attended, including summer school, submitted. It is the applicant's responsibility to request that the Registrar of each institution attended send an official transcript directly to the Office of Admissions by the application deadline date.

4. Have an official high school transcript or GED, including test scores, sent to the Office of Admissions by the application deadline date.

Official credit evaluation of transcripts will be done after admission when tuition deposit is received from student.

ADMISSIONS-NURSING, BUSINESS ADMINISTRATION, EDUCATION

Admission to the Bachelor of Science degree programs in Nursing or Business Administration, and the Bachelor of Arts degree program in Education requires application to and acceptance by the School of Nursing, Cameron School of Business Administration or School of Education in addition to acceptance by the university.

ADMISSIONS-FORMER STUDENT (Re-enrolling)

Former UNCW students who wish to return to the university must apply to the Office of Admissions for readmission prior to May 1 for the fall semester or November 1 for the spring semester. Those who have attended another college or university since their last

rollment at UNCW are required to submit official transcripts from such institutions before ey can be considered for readmission. **A "C" average (2.0 out of 4.0 system) must ave been attained on all work from other institutions attended.** Any student who aves the university and does not register for at least one full semester must apply for admission by the application deadline date.

he Three-year Rule

Any UNCW degree student who has been out of school for at least three years and as not attended any other institution since leaving UNCW is eligible to re-enter under e "three-year rule." Any former student of an accredited college or university who has ot attended school for at least three years is also eligible to enter UNCW under the hree-year rule."

The student who elects to have the three-year rule applied will have neither a quality oint deficit to overcome, nor hours of credit for those courses in which "D" grades were tained. Only courses in which a grade of "C" or better was earned will be counted toward aduation. Nevertheless, this option will not alter the student's original academic record.

The quality point average will begin at the time studies are resumed, and the student will e required to maintain a "C" average on a semester basis to be eligible to continue. Each ummer session counts as a semester. Degree requirements will be those in effect at the me the student reenrolls.

The three-year rule option must be exercised at the time the student applies for admission the university. Once exercised, it may not later be reversed.

DMISSIONS-UNCLASSIFIED STUDENTS

Individuals may enroll in the university as unclassified students by meeting the appropri-e requirements for admission as stated below:

1. A transfer student who has not been enrolled in an institution of higher education for at least one year and who has not been academically suspended within the last three years may apply for admission as an unclassified student.
2. A high school graduate who has not attended an institution of higher education and has been graduated at least two years may apply for admission as an unclassified student. GED candidates must have been out of school two full years since their class graduated.
3. Official college transcripts (transfers) and high school transcript or GED (transfers and freshmen) must be sent to the Office of Admissions by the application deadline date.

Students who enroll as unclassified students may take any undergraduate course as long the prerequisite listed in the course description is honored. Unclassified students are ited to two courses per semester or summer term. An unclassified student may apply admission as a degree candidate upon completing a minimum of 15 semester hours th a "C" average on all work attempted. The student must complete English 101-102 and ee semester hours of basic mathematics with a "C" or better before being considered admission as a degree candidate. An unclassified transfer student who has completed glish 101-102 and three semester hours of basic mathematics with a "C" or better will be nsidered as having met this requirement. However, requirements for transfer students to come degree candidates will vary depending on the previous college performance.

To avoid delay in having applications considered for change-over admission to degree ndidates, unclassified students are advised to apply prior to the application deadline tablished for the semester. The maximum number of hours allowed students in the classified category is 30 semester hours. When this limit is reached, the students must

be eligible to apply for admission consideration as degree candidates or terminate thei enrollment at the university.

Unclassified students are subject to the academic regulations of the university as applicable. Unclassified students are not eligible for some federally funded financial aid programs.

ADMISSIONS-SPECIAL STUDENTS

Any individual who already possesses a degree from a four-year accredited college and wishes to enroll for an undergraduate course at UNCW or any individual with a degree who wishes to work toward a second baccalaureate degree must apply to the Office of Admissions before the application deadline date. An official transcript from the degree-granting institution must be sent from that institution to the Office of Admissions by the deadline date. Second degree candidates must have transcripts from all colleges attended submitted by application deadline date, as well as the official high school transcript or GED sent directly from the high school.

ADMISSIONS-PERMISSION/VISITING STUDENTS

During the summer sessions, students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. Applicants from other colleges or universities must obtain prior written approval from their dean to take courses at UNCW. The university assumes no responsibility in determining a student's course selection when such credits are to be transferred elsewhere. Summer visitor applications and schedules are available by February of each year from the Office of Academic Affairs or the Admission Office. Enrollment by permission from another institution in no way obligates the university to continue one's enrollment at UNCW after the expiration of the permission period. A student may not continue to attend as a permission/visitor student beyond two consecutive summer sessions. To apply for fall or spring semester visitor status, transfer requirements must be met. Application deadline dates apply for permission/visiting students.

ADMISSIONS-SPECIAL HIGH SCHOOL STUDENTS

Selected high school seniors who wish to pursue an academic program on the collegiate level while attending high school may enroll at UNCW if they meet the qualifications for participation in this program. Because of distance, this program is available primarily to students in the Wilmington area. Special applications for admission are available in the office of the high school counselor. Students may enter this program at the beginning of the fall, spring or summer terms. Application deadline dates must be honored.

ADMISSIONS-INTERNATIONAL STUDENTS

The University of North Carolina at Wilmington welcomes interest and inquiry from international students. In addition to meeting regular freshman or transfer academic admission requirements, international students must present evidence of their ability to speak, read and write the English language and to meet fully the financial obligations associated with their study at the university. Students from foreign countries must present the results of the TOEFL examination (Test of English as a Foreign Language) as a part of their application for admission. A financial responsibility statement and proof of accident and hospital insurance must be submitted. All materials for admission consideration must be in the Office of Admissions as least six (6) months prior to the date of registration for the entering semester or term. It is recommended that international students plan to begin their studies in a fall semester.

MISSIONS-SENIOR CITIZENS

esidents of North Carolina age 65 or older who meet applicable admission requirements y enroll tuition free on a space available basis. The availability of class space cannot be ermined until after registration.

MISSIONS-AUDIT STUDENTS

tudents who wish to take courses without receiving credit should apply to the Office of Registrar immediately after the semester registration date. Audit students are admitted a "space-available" basis.

MISSIONS-GRADUATE STUDENTS

ll inquiries concerning admission to graduate programs should be directed to the duate School. Admissions requirements are stated in the Graduate Catalogue.

NCW cooperates with the North Carolina State University in offering a Ph.D. program Marine Science. The degree is awarded by NCSU, but students complete part of their rse work and their dissertation research at UNCW. The program encompasses the dis-ines of marine biology, chemistry and geology. Supporting facilities at UNCW include Center for Marine Science Research. Contact the Graduate School, UNCW, for details application procedures.

NDISCRIMINATION POLICY

NCW is dedicated to equality of opportunity within its community. Accordingly, UNCW s not practice nor condone discrimination in any form against students, employees, applicants on the grounds of race, color, national origin, religion, sex, age, handicap veteran status. UNCW commits itself to positive action to secure equal opportunity ardlessof those characteristics. For additional information, contact the Federal Com-nce Officer.

FETY AND HEALTH PROGRAM

NCW's safety program complies with the State Occupational Safety and Health Act of 3.

Any student who supplies false or misleading information or who conceals pertinent facts in order to enroll in The University of North Carolina at Wilmington will be subject to immediate dismissal from the university.

Expenses

EXPENSES

The Board of Governors of the university reserves the right to change the charges fo tuition fees and the room and board rate at any time without prior notice.

TUITION AND FEES (In effect at time of publication)

All charges for tuition and regular fees are due and payable on or before the day o registration. Checks and money orders should be made payable to The University of Nort Carolina at Wilmington.

Full-Time Charges Per Semester (12 or more semester hours):

	In-State Students	Out-of-State Students*
Tuition	$260.00	$2,446.00
Mandatory Fees	274.00	274.00
Total	$534.00	$2,720.00
Other fees:		
Application Fee (to accompany application, nonrefundable		$15.0
Transcript Fee		1.0
Graduation Fee		35.0

Certain courses have additional fees which increase the semester charges shown above These fee courses are indicated in the course schedule for each semester.

Undergraduate students registering for 12 or more semester hours will be charged at th full-time rate as shown above. Students scheduling fewer than 12 semester hours will pa tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students*
1-5	$114.50	$ 661.50
6-8	360.00	1,453.00
9-11	469.00	2,109.00

*See information on residency at the end of this section

The privileges of students taking fewer than six hours per semester will be restricted t class attendance and use of the library; however, by paying a Special Use Fee of $18.0 per semester, these students will be entitled to use all physical education facilities.

No degree, diploma, transcript of credit, or grades will be furnished a student unt all financial obligations to the university, other than student loans, have been paid. A previously incurred expenses and accounts at the university must be paid in full prior t preregistration or registration for a new term.

N-CAMPUS LIVING

The university offers residence hall living, double occupancy, with two meal plans avail-
le. The rates per semester are as follows:

Room and Board:	15 meals	$1,353.00
Room and Board:	21 meals	$1,378.00

Galloway Hall offers conventional style living, double occupancy, with two meal plans
ailable. The rates per semester are as follows:

Room and Board:	15 meals	$1,363.00
Room and Board:	21 meals	$1,388.00

University apartment living, four (4) students to an apartment, is also offered with the
oice of three meal plans. The rates per semester are as follows:

Apartment and Board:	10 meals	$1,453.00
Apartment and Board:	15 meals	$1,478.00
Apartment and Board:	21 meals	$1,503.00

Students may also elect to live in the University Suites, in either a single or double room
n the choice of three meal plans. There are ten (10) students per suite. The rates per
dent per semester are as follows:

Suites/Single Room and Board:	10 meals	$1,503.00
Suites/Single Room and Board:	15 meals	$1,528.00
Suites/Single Room and Board:	21 meals	$1,553.00
Suites/Double Room and Board:	10 meals	$1,428.00
Suites/Double Room and Board:	15 meals	$1,453.00
Suites/Double Room and Board:	21 meals	$1,478.00

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident
dents not on a 10 or 21 meal plan. Food service is also available to non-resident
dents seven days per week. Off-campus students have the choice of paying cash for
als or purchasing a meal plan through the Housing Office, located in the East Cafeteria.
es for off-campus meal plans are per semester as follows:

10 meals	$528.00
15 meals	$553.00
21 meals	$578.00

he university reserves the right to change the on-campus living rate at any time without
r notice.

n advance room reservation deposit of $100.00, to be applied to the room and board
ount, must be remitted by each applicant, along with the complete application for room
board.

hose interested in obtaining information should contact:
ousing Office
he University of North Carolina at Wilmington
01 South College Road
ilmington, North Carolina 28403-3297

SUMMER SESSION

Summer session tuition, fees, refund policy, and room and board rates will be announce in the Summer Session Bulletin.

REFUNDS-TUITION

A student who officially withdraws from the university on or before the last day of th registration (Drop/Add) period will receive a refund of the amount paid.

Students withdrawing from the university after the Drop/Add period will be charged 1 percent of all semester charges for each week of classes that have been held th semester. This weekly charge begins with the first day of scheduled classes regardles of the actual date of enrollment.

No refunds will be made for withdrawals after the end of the ninth week of schedule classes.

This refund policy applies to complete withdrawals from UNCW. If you simply reduc your course load after the Drop/Add period, you will receive NO refund or reduction fees whatsoever.

REFUNDS-FINANCIAL AID

Students who receive financial aid are not given refunds on financial aid received whe charges are prorated due to withdrawal.

REFUNDS-HOUSING

Housing arrangements are effective for the full academic year. Agreements made sub sequent to the beginning of the fall semester remain in effect until the close of the sprin semester. Housing deposit and charges will not be refunded except as provided f below:

1. **New Students (Incoming Freshmen and Transfers)** - If a new student, after remittin the deposit and being accepted to oncampus housing, decides not to live on campus an gives notice of this decision in writing by May 15, 1990 in the case of application for the fa semester, or at least one month prior to the semester in case of the application for sprin semester, the deposit shall be refunded, less a $25.00 administrative charge. Requests f refund received after May 15, 1990 will be denied and the $100.00 deposit forfeited. Th condition also applies to students remitting the deposit and being accepted to oncampu housing after May 15, 1990.

2. **Returning Students (students currently or previously enrolled at UNCW)** - Th $100.00 housing deposit is non-refundable to returning students after being accepte to on-campus housing. (Exceptions being marriage, transferring to another institution withdrawal from UNCW - less $25.00 administrative fee). Notification must be received the Housing Office, in writing, by May 15, 1990.

3. Room rent for either semester will not be refunded once a student officially moves in a residence hall/apartment.

4. A pro-rata refund of dining charges will be made to students who officially withdra from the university.

RESIDENCE STATUS FOR TUITION PURPOSES

The basis for determining the appropriate tuition charge rests upon whether a student a resident or a nonresident for tuition purposes. Each student must make a statement to the length of his or her residence in North Carolina, with assessment by the instituti of that statement to be conditioned by the following:

esidence. To qualify as a resident for tuition purposes, a person must become a al resident and remain a legal resident for at least 12 months immediately prior to ssification. Thus, there is a distinction between legal residence and residence for on purposes. Furthermore, twelve months legal residence means more than simple de in North Carolina. In particular it means maintaining a domicile (permanent home ndefinite duration) as opposed to maintaining a mere temporary residence or abode dent to enrollment in an institution of higher education. The burden of establishing s which justify classification of a student as a resident entitled to instate tuition rates n the applicant for such classification, who must show his or her entitlement by the ponderance (the greater part) of the residentiary information.

itiative. Being classified a resident for tuition purposes is contingent on the student's king such status and providing all information that the institution may require in making determination.

arent's Domicile. If an individual, irrespective of age, has living parent(s) or court-ointed guardian of the person, the domicile of such parent(s) or guardian is, prima e, the domicile of the individual; but this prima facie evidence of the individual's nicile may or may not be sustained by other information. Further, nondomiciliary us of parents is not deemed prima facie evidence of the applicant child's status if applicant has lived (though not necessarily legally resided) in North Carolina for the years preceding enrollment or reregistration.

ffect of Marriage. Marriage alone does not prevent a person from becoming or cont-ng to be a resident for tuition purposes, nor does marriage in any circumstances insure a person will become or continue to be a resident for tuition purposes. Marriage and legal residence of one's spouse are, however, relevant information in determining dentiary intent. Furthermore, if both husband and his wife are legal residents of North olina and if one of them has been a legal resident longer than the other, then the longer ation may be claimed by either spouse in meeting the twelve-month requirement for ate tuition status.

ilitary Personnel. A North Carolinian who serves outside the State in the armed forces s not lose North Carolina domicile simply by reason of such service. And students from military may prove retention or establishment of residence by reference, as in other es, to residentiary acts accompanied by residentiary intent.

race Period. If a person (1) has been a bona fide legal resident, (2) has consequently n classified a resident for tuition purposes, and (3) has subsequently lost North olina legal residence while enrolled as a public institution of higher education, that son may continue to enjoy the in-state tuition rate for a grace period of twelve months asured from the date on which North Carolina legal residence was lost. If the twelve nths end during an academic term for which the person is enrolled at a State institution igher education, the grace period extends, in addition, to the end of that term. The fact arriage to one who continues domicile outside North Carolina does not by itself cause of legal residence, marking the beginning of the grace period.

inors. Minors (persons under 18 years of age) usually have the domicile of their par-s, but certain special cases are recognized by the residence classification statute in ermining residence for tuition purposes.

a) If a minor's parents live apart, the minor's domicile is deemed to be North Carolina the time period(s) that either parent, as a North Carolina legal resident, may claim does claim the minor as a tax dependent, even if other law or judicial act assigns minor's domicile outside North Carolina. A minor thus deemed to be a legal resident not, upon achieving majority before enrolling at an institution of higher education, lose th Carolina legal residence if that person (1) upon becoming an adult acts, to the ent that the person's degree of actual emancipation permits, in a manner consistent

with bona fide legal residence in North Carolina and (2) begins enrollment at an institutio of higher education not later than the fall academic term following completion of educatio prerequisite to admission at such "institution."

(b) If a minor has lived for five or more consecutive years with relatives (other tha parents) who are domiciled in North Carolina and if the relatives have functioned durin this time as if they were personal guardians, the minor will be deemed a resident f tuition purposes for an enrolled term commencing immediately after at least five years which these circumstances have existed. If under this consideration a minor is deeme to be a resident for tuition purposes immediately prior to his or her eighteenth birthda that person on achieving majority will be deemed a legal resident of North Carolina of least 12 months duration. This provision acts to confer instate tuition status even in th fact of other provisions of law to the contrary; however, a person deemed a resident 12 months duration pursuant to this provision continues to be a legal resident of the Sta only so longs as he or she does not abandon North Carolina domicile.

Lost but Regained Domicile. If a student ceases enrollment at or graduates from a institution of higher education while classified a resident for tuition purposes and then bo abandons and reacquires North Carolina domicile within a 12-month period, that person he or she continues to maintain the required domicile into re-enrollment at an institution higher education, may re-enroll at the in-state tuition rate without having to meet the usu 12-month durational requirement. However, any one person may receive the benefit of th provision only once.

Change of Status. A student admitted to initial enrollment in an institution (or permitte to re-enroll following an absence from the institutional program which involved a form withdrawal from enrollment) must be classified by the admitting institution either as resident or as a nonresident for tuition purposes prior to actual enrollment. A residenc status classification once assigned (and finalized pursuant to any appeal properly take may be changed thereafter (with corresponding change in billing rates) only at interva corresponding with the established primary divisions of the academic year.

Transfer Students. When a student transfers from one North Carolina public institution higher education to another, he or she is treated as a new student by the institution to whic he or she is transferring and must be assigned an initial residence status classification f tuition purposes.

The initial classification of undergraduate students as in-state or out-of-state residen for tuition purposes is made by the Admissions Office. Appeals for in-state status ma be made to the campus appeals body, Out-of-State Tuition Appeals Committee. Un versity regulations governing residential classification of students are set forth in det in A Manual to Assist the Public Higher Education Institutions of North Carolina in th Matter of Student Residence Classification for "Tuition Purposes." Each enrolled stude is responsible for knowing the contents of this manual. Copies of the manual are availab for inspection upon request in the Admissions Office and in the Randall Library.

Financial Aid

FINANCIAL AID

The UNCW Financial Aid Office administers a program of financial assistance whic seeks to meet the needs of all enrolled students. While the program provides for th recognition of talent and outstanding student achievement, its primary objective is to ass students with demonstrated need. In assisting students, the office analyzes and validate the financial need of the applicants and their families through the use of financial stat ments, related documents, and the interview process. Utilizing this information, awarc are constructed to enable a student to bridge the gap between the student and famil resources and the cost of attendance. This assistance may be in the form of scholarship grants, loans, work study jobs, or a combination of any of these programs.

To apply for financial aid a student must complete the College Scholarship Servic Financial Aid Form and submit other documentation as may be requested by the Financ Aid Office. Detailed information on programs, policies, and procedures are printed in "Yo Guide to Financial Aid" which may be obtained from the Financial Aid Office. Questio concerning the financial aid program at UNCW should be directed to the Financial A Office, The University of North Carolina at Wilmington, 601 S. College Rd., Wilmingto N.C. 28403-3297, (919) 395-3177.

MINORITY PRESENCE GRANT PROGRAM

Under the Board of Governors general Minority Presence Grant Program, black studer may be eligible for special financial assistance if they are residents of North Carolir enrolled for at least three hours of degree-credit course work, and demonstrate financ need.

AMERICAN INDIAN STUDENT LEGISLATIVE GRANT

The General Assembly of North Carolina has provided funds for a number of grants needy resident North Carolina Indian students. Eligibility is limited to degree students wl maintain cultural identification as an American Indian through membership in an Indi tribe recognized by the State of North Carolina or by the federal government or throug other tribal affiliation.

GRANTS

Pell Grants provide federal grants for students who show need for assistance in atten ing college. This grant is intended to cover the period required to complete the fi undergraduate baccalaureate degree; however, students are limited to five full years entitlement under this grant program. Students must be enrolled for at least six hours ar must be making satisfactory progress in their academic program. In addition, a stude must be a U.S. citizen or in the United States for other than a temporary purpose. Awarc are based on a national formula applied uniformly to all applicants.

The Supplemental Educational Opportunity Grant Program provides aid to studer who show need for assistance in attending college. Supplemental grants range in valu from $100 to $4,000 per year, with the cumulative maximum of $12,000. To be eligible f a grant at UNCW, a student must be enrolled in a degree program and must be a citize or permanent resident of the United States. The application and Financial Statement mu demonstrate exceptional financial need. Full-time student applicants are given prior when funds are limited.

The North Carolina Student Incentive Grant Program is administered by College ɔundation, Inc., for legal residents of North Carolina accepted or enrolled full time ıd in good standing in an undergraduate program of study. Student must demonstrate ıbstantial financial need as determined through the Financial Aid Form of the College cholarship Service. Students should see that the completed Financial Statement is sent ith the processing fee as soon after January 1 as possible, but not later than March 15; te filers will be considered if funds are available.

Athletic Grants-In-Aid are awarded to qualified students selected by members of the ɔaching staff. Additional information may be obtained by writing to the director of hletics.

The North Carolina National Guard Tuition Assistance Program is state funded Tuition ssistance Program for active members of the North Carolina Guard. This program will ay the cost of tuition per academic year for a maximum of four years. For additional formation contact:

Office of the Adjutant General
North Carolina National Guard
Attn.: AGRR
P.O. Drawer 26268
Raleigh, N.C. 27611
(919) 733-3770—Ext. 175

ENERAL SCHOLARSHIPS

Students wishing to apply for a particular scholarship(s) should submit a written request the UNCW Financial Aid Office unless a different procedure is outlined in the scholarship escriptions below. University scholarships are awarded by the Financial Aid Office to ıancial aid applicants demonstrating financial need and academic achievement. These cholarships are awarded on a competitive basis so that those students with the greatest eed and the highest grade point average of those applying are generally awarded. utomatic consideration is given to all applicants.

Dr. A. P. and Frances Dickson Scholarship is awarded annually to a full-time under-aduate student who currently resides in Hoke County, North Carolina. Recipients are ıosen by the Financial Aid Office on the basis of academic standing and financial need. wards are nonrenewable and vary in amount according to income available from the ust.

James Lee Love Scholarship is awarded annually to a full-time North Carolina resident ıdergraduate student. Recipients are chosen by the Financial Aid Office on the basis academic standing and financial need. Awards are nonrenewable and vary in amount cording to income available from the Trust.

The Eva McMillian Ross Scholarship provides an annual award to a female who is a ew Hanover County high school graduate with a 3.5 or better grade point average. The holarship is renewable if a 3.2 grade point average is maintained.

UNCW Scholarships are awarded to students for talent and outstanding achievement. ese scholarships are awarded through the Financial Aid Office by various departments, ganizations, and campus publications.

The H.M. & Pearl Kyle Foundation Scholarship is awarded annually to a worthy and eserving student. It is the intent of the donors that the scholarship be awarded to a person ıo can establish some sense of need and who is from eastern North Carolina or eastern ɔuth Carolina. Because the scholarship may be renewed on the strength of academic erformance and continued need, a new recipient may not be named every year.

The Pilot Club Scholarship is awarded annually by the Pilot Club of Wilmington to a worthy and deserving student. Students with a handicap are given special consideration in the awarding of this scholarship.

The Zonta Scholarship is awarded annually to a UNCW female student of junior or senior standing, or a female graduate student enrolled in an approved program. She should be enrolled at least half time and have an overall grade point average of 3.0 have leadership potential, be of high ethical standards, and show promise in her chosen profession.

The University Women of UNCW Scholarship is awarded annually to a female undergraduate student enrolled full time who has completed at least 60 semester hours. First consideration will be given to the student who demonstrates academic ability with financial need as second consideration. The non-traditional student will be given priority.

The Lucille Murchison Marvin Scholarship is awarded each year to two students at UNCW who have grade point averages of at least 3.0 and who demonstrate scholarship ability and financial need.

The Champion McDowell Davis Scholarship is available to students from any major. This scholarship covers tuition and fees, books and other select expenses and is awarded to students based on academic achievement, leadership potential and demonstrated financial need. A selection committee is charged with choosing the recipients each year. Application can be made at the Financial Aid Office.

The Eliza Collins Scholarship is awarded yearly to several students who demonstrate scholastic ability and need.

The Henry Harrell, Sr., and Alma M. Harrell Scholarship is awarded annually to students who have a grade point average of 3.0 or better and have an exceptional financial need.

The Eris Langhammer Scholarship is an in-state tuition and fee scholarship designed to enhance the minority presence on the UNCW campus. The scholarship is available to students in any academic discipline but is restricted to undergraduate students. Consideration will be given to financial need and academic potential. Applications can be made in the Financial Aid Office.

The C. M. and M. D. Suther Scholarship is awarded annually to deserving high school graduates who would not otherwise be able to attend college. The scholarship amount will be approximately $950 annually.

The Devereux Haigh Lippitt Scholarship is awarded annually to a North Carolina student based on academic achievement. This scholarship covers the in-state cost of tuition and fees and is given in memory of Mr. Devereux Haigh Lippitt by his family.

The Elizabeth Dudley Urquhart Memorial Scholarship Fund provides a tuition and fees scholarship to an academically talented student who demonstrates financial need. The recipient must have completed the last two years of high school in a New Hanover County public school.

The Eddie Godwin, III Memorial Scholarship of $1,000 is awarded to a graduate of New Hanover High School. Applicants must be able to demonstrate financial need through the regular financial aid process. Applicants should also show evidence of self help and acceptable academic standing. Though not required, athletic participation at the high school level is desirable.

The Alumni Association Academic Scholarship Program provides annual, renewable in-state tuition and fees scholarships based on academic achievement and potential. Students must be classified as North Carolina residents for tuition purposes. Applications secured from the UNCW Alumni Affairs Office, must be completed and returned to the office by March 15.

The Mary Courtney Hardison Scholarship(s) are intended for female freshman students ho are graduates of any accredited high school in New Hanover County. Preference ould be given to female students who have been active in high school activities, cluding organized athletics. Recipient(s) shall be selected based on a combination of cademic achievement and demonstrated financial need.

The Army ROTC Scholarship and Simultaneous Membership Program. The Depart- ent of Military Science can assist UNCW students in applying for one of the Army's more an 12,750 Army ROTC Scholarships given annually. All academic majors are accepted nd students can apply for two-and three-year scholarships. For more information contact e professor of military science. Additionally, students might consider the Simultaneous embership Program. By participating in the UNCW ROTC program and simultaneously nlisting in the North Carolina Army National Guard or United States Army Reserve, a udent can receive up to $20,000 over a four year period. The National Guard and nited State Army Reserve offer tuition assistance, loan repayment programs, enlistment onuses, drill pay and the opportunity to receive the benefits of the G.I. Bill. For more formation, contact the professor of military science.

The New Hanover Memorial Hospital Auxillary Scholarship of $500 is awarded each ear to a student pursuing studies in a health related field. Candidates must be graduates a New Hanover County high school, be of good character, and be active in school and ommunity activities. Entering freshmen must be in the top 10 percent of their graduating ass and have scored at least 900 on the SAT. In the event that more than one student ualifies academically, need shall be a determining factor. This scholarship is renewable ontingent on continuing satisfactory academic progress. Consequently, this scholarship ay not be open each year to new candidates. Inquiries and requests for application forms ould be directed to the Financial Aid Office.

The Rotary Club of Wilmington provides an annual tuition and fees scholarship to an ndergraduate applicant who demonstrates academic strength, good character traits, and nancial need.

The Aaron and Elizabeth Silverman Scholarship Fund provides a tuition and fees holarship to academically strong students. Scholastic achievement and graduation from accredited North Carolina high school are the only criteria. The scholarship(s) can be warded to a prospective student or to those students currently enrolled.

The Wilmington Business and Professional Women USA Scholarship of $1,000 is warded annually to a female student who plans to pursue a business or professional reer. Applicants must demonstrate financial need, academic achievement, and clearly ated educational goals. Applications may be obtained from the Financial Aid Office.

The Wilmington Women's Club Scholarship is awarded to a New Hanover County gh school graduate who demonstrates academic achievement and financial need. recipient may continue to receive this scholarship if a 3.0 grade point average is aintained.

The Laurance Bell Scholarship is given annually by the Port City Chapter, National ssociation of Black Social Workers in memory of Laurance Bell. The scholarship is to used to increase minority presence at UNCW. The number and amount of awards e determined by earnings of the fund. Recipients of the award are urged to repay the holarship upon entrance into the work force.

UNCW Bookstore Textbook Scholarships are awarded annually to two students in ch academic department. The recipients are selected by each department based on ademic achievement and extracurricular activities. Each recipient is awarded a $125 NCW Bookstore Textbook Scholarship Certificate which must be presented to the UNCW ookstore when purchasing textbooks.

The Delta Sigma Theta Sorority Scholarship is an annual $600 award to assist UNCW increase its minority enrollment. Eligible students must be graduates of an accredited high school in either New Hanover, Pender or Brunswick counties. Recipients will be selected on the basis of achievement and potential.

COLLEGE OF ARTS AND SCIENCES SCHOLARSHIPS

The New Hanover Memorial Hospital Auxiliary Scholarship provides an annual award to a student majoring in a health related field. Academic merit and participation in extra curricular activities are the primary criteria used with financial need being a secondary factor in selecting the recipient.

The Benjamin R. and Edith B. Graham Scholarship is awarded annually to a marine biology or education major who graduated from an accredited Southeastern North Carolina high school. The award shall be based on academic achievement with financial need being a secondary factor. Inquiries should be made to the chairperson of the respective major department.

The Joseph Cyrus Awkard Award is a scholarship established by Joseph C. Awkard Jr., emeritus professor of psychology, to recognize academic achievement and campus leadership among students majoring in psychology.

The Department of Biological Sciences annually awards three scholarships. **The Herbert and Shirley Mintzes Memorial Scholarship** is awarded to the rising sophomore with the highest standing in the Principles of Biology course (BIO 110-111); the recipient is chosen by the course instructors. **The Dovie P. Bowden Scholarship** is awarded to a student of junior standing on the basis of scholarship and need; eligible students should contact the department chairperson to apply. **The Franklin H. Allen Scholarship** is awarded to a rising senior on the basis of grade point average and other evidence of achievement; the recipient is chosen by a faculty committee.

The Hutaff Scholarship Program awards annual scholarships to a student who has been accepted into the UNCW School of Nursing and four scholarships to students in the humanities. Recipients will be selected on demonstrated financial need and academic and leadership potential.

The Wilmington Coca-Cola Scholarship is awarded to a student enrolled in one of the humanities. Character, leadership and demonstrated financial need will be factors in determining recipients. Consideration will also be given to candidates who have shown evidence of self help.

The Ernest Stephen Prevost Scholarship is awarded to an undergraduate student majoring in chemistry. The recipient will be selected based on a demonstrated financial need and proven academic ability. For information contact the chairperson of the Department of Chemistry.

The Cape Industries Scholarship is awarded to a chemistry major at UNCW who has a high grade point average. Interested students should contact the Department of Chemistry.

The LAQUE Scholarship is an annual scholarship awarded to a chemistry major. Students interested in applying for this scholarship should contact the chairperson of the Department of Chemistry.

The Wright Chemical Corporation Scholarship is awarded to a chemistry major. Students interested in applying for this scholarship should contact the chairperson of the Department of Chemistry.

The American Society for Quality Control Scholarship. The Wilmington section of the American Society for Quality Control has established an academic scholarship for a rising senior majoring in math with a strong background in statistics or for a rising senior in the

ld of business. The amount of the award will be the equivalent of in-state tuition for o semesters. Interested applicants should contact the chairperson of the Department Mathematical Sciences.

The Helena R. Cheek Memorial Scholarship is awarded by the Department of Foreign anguages and Literatures to a student who demonstrates special ability in the area of reign language study and overall academic excellence. This scholarship is given in emory of Helena R. Cheek by her family and friends.

The William F. Adcock, Jr., Music Scholarship is awarded to a student who plans to raduate from UNCW with an emphasis in music and who has no more than 36 hours complete for graduation. The award will be based upon overall excellence in music, oveaverage academic record and acceptable performance standards.

The A. J. Fletcher Music Scholarship is a competitive scholarship awarded to music ajors who demonstrate through audition and scholastic record high proficiency in music erformance and strong achievement in academic work.

The J. Rupert Bryan Scholarship is awarded to a political science major with financial eed. Candidates must be able to demonstrate creativity, curiosity, and academic wor-iness.

The James E. L. Wade Scholarships in history and political science are awarded to high chool seniors who have a B average or above on high school work, an interest in history political science as a major, and financial need. For additional information, contact the opropriate department chairperson.

The J. Marshall Crews Scholarship is awarded annually to a major in the Department Mathematical Sciences. Selection is based upon academic excellence, extra-curricular ctivities, and faculty recommendation. Applicants seeking further information should con-ct the Department of Mathematical Sciences.

The Fred Toney Scholarship is awarded each year based upon balloting by the faculty the Department of Mathematical Sciences. Criteria include academic excellence and xtracurricular activities. Inquiries should be directed to the chairperson of the Department Mathematical Sciences.

The R & E Electronics Scholarship is an annual scholarship awarded primarily to minority sophomore student in pre-engineering studies who graduated from a North arolina high school. The scholarship is based on academic ability and financial need.

The Wilmington Arts Association Scholarship is awarded to a junior or senior majoring the arts division of the Department of Fine Arts. Academic excellence and artistic merit ill be criteria for determining recipients.

The R.F. Zimmerman/South Atlantic Services Scholarship is awarded annually to a hemistry major. The award includes in-state tuition, fees and a book allowance. Recipient ill be selected on basis of academic achievement and documented financial need, as ell as good character and leadership potential.

AMERON SCHOOL OF BUSINESS ADMINISTRATION SCHOLARSHIPS

The W.A. Corbett Scholarship is awarded annually to a junior or senior in the Cameron chool of Business Administration with a grade point average of 3.0 or better who is lanning a career in the field of business. For information and application forms, contact e Office of Financial Aid or the dean of the Cameron School of Business Administration.

The William S. Holland Scholarship for accounting majors, established in honor of illiam S. Holland, retired partner of Cherry, Bekaert and Holland, Certified Public ccountants, and a member of the first graduating class of Wilmington College, is warded annually. For information and application forms, contact the chairperson of the epartment of Accountancy.

The Harold M. Cole Scholarship for accounting majors, is awarded to native born Moore County residents who are graduates of a secondary or preparatory school and in need of financial assistance to attend school. The deadline for receipt of applications is March 15 for upcoming fall enrollment. For information and applications contact the Financial Aid Office.

The J. W. Jackson Scholarship has a $2,000 per year value and is restricted to a junior senior or graduate student enrolled in the Cameron School of Business Administration The scholarship is designed for students with high academic potential. Application can be made in the Financial Aid Office. Students awarded this scholarship are eligible to reapply.

The Jesse L. Marshall Scholarship is awarded to a junior or senior in the Cameron School of Business Administration who has demonstrated both financial need and scholastic ability. Applicants may apply to the dean of the Cameron School of Business Administration.

The Lower Cape Fear Personnel Association Scholarship, established for students planning to concentrate in the study of management, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairperson of the Department of Management and Marketing.

The North Carolina National Bank Scholarship is awarded annually to a student with an indicated interest in a career related to banking and/or finance. For information and application forms, contact the Financial Aid Office or the dean of the Cameron School of Business Administration.

The Sales and Marketing Executives International Association (Cape Fear Chapter Scholarship, established for students concentrating in the study of marketing, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty For information and application forms, contact the chairperson of the Department of Management and Marketing.

The United Carolina Bank Scholarship, established for students with an indicated interest in banking or finance, is awarded annually on the basis of scholastic ability financial need, and recommendations by the faculty. For information and application forms, contact the chairperson of the Department of Economics and Finance.

The Sally R. Wilkins Scholarship is a $1,000 annual scholarship restricted to female students planning a career in business. The scholarship is designed for students having a demonstrated financial need and a clearly designed academic goal. Application can be made in the Financial Aid Office. This scholarship is non-renewable.

SCHOOL OF EDUCATION SCHOLARSHIPS

The Lee V. Landing Scholarships are awarded annually to elementary, middle school or special education majors who have been accepted into the UNCW School of Education Recipients are selected on the basis of academic achievement as first consideration with financial need a secondary factor.

The Delta Kappa Gamma Scholarship provides an annual award to a female junior or senior education major. The recipient must demonstrate financial need and a 2.0 or better grade point average.

The Benjamin R. and Edith B. Graham Scholarship is awarded annually to a marine biology or education major who graduated from an accredited Southeastern North Carolina high school. The award shall be based on academic achievement with financial need being a secondary factor. Inquiries should be made to the chairperson of the respective major department.

The Paul Douglas Teacher Scholarship Program authorized by the U.S. Congress ovides college scholarships to outstanding undergraduates who have chosen to pursue aching careers at the preschool, elementary, or secondary level. Applicants are evalued on the basis of academic performance, leadership, extracurricular participation, and omise of service as a teacher. PDTS awards are valued at up to $5,000 annually and ay be received for a maximum of four undergraduate academic years, subject to conessional appropriations. The amount of the PDTS award may not exceed the recipients' st minus other financial aid received. This scholarship converts into a loan commitment quired by this award. Inquiries should be directed to the School of Education.

The N.C. Teaching Fellows Program is designed to identify talented students interested teaching, and to assist those students in becoming teachers by the award of scholarip/loans for four years of undergraduate study, repayable through the means of service. vard recipients will receive annual awards of $5,000 for each of their four college years bject to legislative appropriation. Consideration under this program is given to entering shman. Interested applicants should contact their high school guidance office.

The N.C. Prospective Teacher Scholarship/Loan Program provides assistance to ospective North Carolina teachers. The program provides a $2,000 per year loan which l be cancelled if the student teaches in North Carolina public schools after graduation. e program is administered by the Department of Public Instruction. Inquiries regarding program should be directed to N.C. Prospective Teachers Scholarship Program, State epartment of Public Instruction, Raleigh, NC 27611. To be eligible for this program a udent must be enrolled for at least 12 hours and be a North Carolina resident.

The James Ozborn Carr Scholarship is awarded to students in the School of Education. aracter and leadership potential will be factors in determining recipients. The scholships are restricted to graduates of Southeastern North Carolina high schools. The holarships are designed to attract and retain academically strong students.

The Ann Durant Walker Scholarship Award—The Alpha Psi Chapter of Alpha Delta ppa awards a scholarship to a junior or senior majoring in special education. The holarship is given in memory of Ann Durant Walker who helped develop the Special lucation Program in New Hanover County.

The Sue McCall Boone Scholarship for education majors was established to provide scholarship for a New Hanover County student who demonstrates a financial need at NCW. The scholarship is named in honor of Miss Sue Boone, New Hanover educator, o contributed over 50 years of service in the community. The scholarship is awarded to e student biennially in the amount of tuition.

CHOOL OF NURSING SCHOLARSHIPS

The Robert Shaw Scholarship provides an annual award to an undergraduate student rolled or planning to enroll in the School of Nursing. The recipient shall be selected sed on academic merit and the scholarship will be valued at the state rate for tuition d fees. For information, contact the dean of the School of Nursing.

The Whitworth Scholarship provides an annual award of $500.00 to a student enrolled planning to enroll in the School of Nursing. The recipient shall be selected based on ademic merit. For information, contact the dean of the School of Nursing.

The Nursing Education Scholarship/Loan Program provides assistance to prospece North Carolina nurses. The recipient must be able to demonstrate need through the gular financial aid process. The program provides loans which will be cancelled if the cipient practices full time in North Carolina after graduation. Applicants should contact e Financial Office for specific information.

The Edith Graham Toms Scholarship is a memorial scholarship awarded to an outstanding nursing student. This scholarship is valued at the in state rate for tuition and fees plus books and supplies. Applicants must be admitted into the School of Nursing.

The Medical Auxiliary Scholarship is awarded to a nursing student, second- or third year medical technology student, or junior or senior pre-medical student who is a resident of New Hanover, Pender, or Brunswick County and who demonstrates financial need and scholastic ability.

The Hutaff Scholarship Program awards annual scholarships to a student who has been accepted into the UNCW School of Nursing and four scholarships to students in the humanities. Recipients will be selected on demonstrated financial need and academic and leadership potential.

The Forty and Eight Nursing Scholarship is an academic scholarship established by Voiture 245, the Forty and Eight of American Legionnaires, in joint memory of Voyageur Militaire John H. McInnis and Miss Dorothy Dixon, and is open to nursing students who graduated from high school in New Hanover, Pender, or Brunswick County.

The Ministering Circle of Wilmington awards scholarships on the basis of scholastic ability, financial need, and recommendation, to students accepted in the School of Nursing at UNCW.

The Juanita Borneman Memorial Scholarship, awarded to a student from rural North Carolina, approximates the cost of tuition.

The Billie Burney Memorial Scholarship, started by family and friends of the late Billie Burney, is awarded annually as a tuition scholarship to a student in the field of nursing.

The Louise Ogden Wright Nursing Scholarship is a $500 scholarship given annually by Mrs. Andrew Harriss in memory of her mother. The recipient is selected on the basis of financial need, academic record, and professed intention to pursue nursing as a career.

The Theresa Bentsen Warrick Memorial Nursing Scholarship is awarded to a nursing student demonstrating financial need and proved academic and clinical achievements. Applicants must be graduates from N. C. high schools and present an overall grade point average of at least 2.5.

EMPLOYMENT

The College Work-Study Program, which is federally funded, provides part-time jobs on the UNCW campus for students who have financial need and who must earn part of their education expenses. To be eligible for work-study, a student must be enrolled in a degree program and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need. Full-time student applicants are given priority when funds are limited.

The Institutional Work Program, also known as the Work Assistant Program, makes funds available for campus jobs for students. These funds are allocated to departments with the selection of student work assistants controlled by those departments. Students receiving any type of financial aid must receive clearance through the Financial Aid Office before accepting work positions under this program. Students interested in the program should direct inquiries to the department in which they prefer to work.

Off-Campus Employment is coordinated by the Career Planning and Placement Center. The office publicizes specific job openings, makes individual referrals, announces recruiting visits, and keeps on file company literature, information about public and private schools, and state and federal government opportunities. Students interested in using the services of this office should register with the Career Planning and Placement Center to establish a credentials file.

OANS

Supplemental Loans for Students

Supplemental loans provide funds for students to cover their college expenses in addition those borrowed under the Guaranteed Loan program. These loans are available to dependent undergraduate and graduate students who meet federal eligibility, the credit orthiness of the borrower is of primary importance. Students may borrow up to $4,000 er year for a cumulative total of $20,000. However, no student may borrow more than s cost of education minus other aid received. Repayment begins immediately with the st installment due 60 days after receipt of your money. A variable interest rate will alculated annually based on a federal formula but cannot exceed 12 percent.

Parent Loans for Undergraduate Students

Parent loans may be secured to assist in covering educational costs. Parents may borrow o to $4,000 per year for a combined total of $20,000. However, a parent may not borrow ny amount that would make the total amount of financial assistance that both the student nd parent receive greater than the cost of attendance at UNCW. In determining eligibility, e credit worthiness of the borrower is of primary importance. A variable interest rate will e calculated annually based on a federal formula. The new rate will begin each year but annot exceed 12 percent.

Stafford Student Loans provide students with long-term, low-interest loans. Under this rogram a student may borrow up to $2,625 for each of the first two years in school and 4,000 for each of three additional years. All borrowers are required to complete the egular financial aid process and establish their eligibility on a basis of financial need. epayment of these loans begins six months after a student ceases to be enrolled at east half time and borrowers are permitted up to ten years for repayment. The interest n the loan begins at the time of repayment and is calculated at eight percent but ses to ten percent during the fifth year of repayment. Students determined eligible for loan through the North Carolina central lender (College Foundation, Inc.) will receive n application/promissory note with their award letters. Students wishing to apply for a oan through other lenders must submit an application from that particular lender to the inancial Aid Office. For additional information, contact the Financial Aid Office.

Perkins Loans provide needy students with long-term, low-interest loans for educational xpenses. Under this program students may borrow up to $4,500 for the first two years of tudy and a total of $9,000 for undergraduate study. Repayment begins nine months after raduation or withdrawal from school, and the borrower may take up to ten years to repay e loan. The interest rate is five percent and does not begin accruing until six months fter graduation or withdrawal from school. All or part of the loan can be cancelled by eaching or military service. Applicants must complete the regular financial aid process. o be eligible for a Perkins Loan, a student must be enrolled in a degree program and ust be a citizen or permanent resident of the United States. Full-time student applicants re given priority when funds are limited.

The North Carolina Prospective Teachers Scholarship-Loan Program provides assisance to prospective North Carolina teachers. The program provides a $2000-per-year oan which will be cancelled if the student teaches in North Carolina public schools after raduation. The program is administered by the Department of Public Instruction. Inquiries egarding the program should be directed to N.C. Prospective Teachers Scholarship Proram, State Department of Public Instruction, Raleigh, N.C. 27611. To be eligible for this rogram a student must be enrolled for at least 12 hours and be a North Carolina resident.

The North Carolina Student Loan Program for Health, Science and Mathematics provides financial assistance to North Carolina residents who demonstrate need as determined by the Board for Need-Based Medical Student Loans. Loans are available for study in the medical fields, mathematics and science programs that lead to a degree. Additional information can be obtained by writing to:

The Student Loan Program
116 West Jones Street, Room 279
Administration Building, Suite 279
Raleigh, North Carolina 27611

The Nursing Education Scholarship/Loan Program provides assistance to prospective North Carolina nurses. The recipient must be able to demonstrate need through the regular financial aid process. The program provides loans which will be cancelled if the recipient practices full time in North Carolina after graduation. Applicants should contact the Financial Office for specific information.

William L. Anderson Barlow and Mellie Hill Barlow Fund provides interest free loans to eligible candidates when repaid within ten years after graduation or last enrollment in a degree program. Eligible candidates include priority consideration for full-time students who are orphans or raised in orphan-like conditions and who are in need of and are worthy of financial assistance in securing a college education. Applicants from single parent homes may also be considered as may other categories of students depending on the availability of funds. A separate application is required and may be obtained from the Financial Aid Office.

ACADEMIC CONSIDERATIONS

Time Limitation Policy for Determining Eligibility for Financial Aid

A student is allowed up to two additional years beyond the traditional four-year track to complete the undergraduate degree. Any semester in which he or she registers and does not withdraw within the formal drop-add period will be counted, regardless of student's financial status.

Additionally, a student is determined to be no longer eligible for Federal Pell Grant Program once the required hours for graduation have been met. This is true regardless of whether or not the student applies for graduation.

Satisfactory Progress

To be eligible to receive or to remain eligible to receive financial aid funds, undergraduates must maintain satisfactory progress: in their course of study. A determination of satisfactory progress incorporates two standards applied at the end of the regular academic year.

Standard one requires that full-time students must complete 10 hours (approximately one-twelfth of total hours required for graduation). In the case of a student who changes his or her enrollment status from fall to spring semester, the hours which must be completed will be averaged. Standard two involves a qualitative measurement, as shown in the following chart establishing grade standards for hours attempted.

DEGREE STUDENTS		UNCLASSIFIED STUDENTS	
Hours Attempted	**GPA**	**Hours Attempted**	**GPA**
6 - 26	1.2	1 - 6	1.2
27 - 58	1.5	7 - 12	1.5
59 - 88	1.8	13 - 18	1.8
89 or more	2.0	19 - 27	2.0

NOTE: Students enrolled under the three-year rule will be required to meet a minimum 2.0 PA each term and meet the quantitative measurement of standard one.

The standards of progress outlined for financial aid recipients are not applicable for pur-oses of continued enrollment, since such determinations will be made by the university in ccordance with institutional policy.

A preliminary review will be made at mid-year (following fall semester) to identify those udents not meeting the required academic standards. Full-time students not successfully ompleting at least 10 hours, and less-than-full-time students not completing at least 5 ours will be determined deficient. Students not meeting the academic requirements utlines on the retention chart will be issued a warning. Financial aid recipients who fail meet both standards at the end of the spring semester will lose their continuing eligibility s aid candidates for subsequent periods of enrollment.

Eligibility lost due to shortage of hours can be regained by successfully completing at east 10 hours plus the number short (for full-time students) or as least 5 hours plus the umber short (for less-than-full-time students) during the regular term. Eligibility lost due failure to meet academic requirements can be regained by bringing the G.P.A. up to the andards outlined on the retention chart.

Students terminated from aid because of failure to meet satisfactory progress standards ay appeal when mitigating circumstances exist.

ransfer Students

Each newly-enrolling student, whether freshman or transfer, is initially assumed to be aking satisfactory progress. Additionally, the number of hours accepted as transfer ours will be used to place the student within the time frame allowed to complete the ndergraduate degree.

ETERANS SERVICES

Veterans Services are administered under the umbrella of Student Financial Aid at NCW. Veterans services are intended to meet the needs of students receiving benefits nder Chapter 35 (Dependednt), the old G.I. Bill (Chapter 34), the new Montgomery .I. Bill (Chapter 30), for persons serving on active duty and Chapter 106's which are e reservists from all branches of the service. Effective December 31, 1989, veterans Chapter 34) who served in the armed forces between 1955-1977 will no longer be eligible draw benefits under a monthly educational assistance allowance. These benefits have xpired and have been replaced by the Montgomery G.I. Bill, also known as Chapter 0 and Chapter 106 (Reservists). Veterans who feel they still have an entitlement should heck with their local VA Office, the Regional Office in Winston-Salem (1-800-642-0841) or e VA Certifying Official at their local educational institution.

There are two exceptions to the above:

1. The veteran who has a 10 percent disability due to a service connected disabil-y may be eligible for benefits under Chapter 31. Check with the Regional Veterans dministration, Vocational Rehabilitation (1-800-642-0841). The district supervisor for this rea is Cecelia Wall.

2. Veterans who served on active duty with unbroken service between July 1, 1985 an June 30, 1988 may be eligible for a combination of Chapter 34/30 if they entered the sprin semester with one day of remaining eligibility. For those veterans who had Chapter 3 entitlement, it will not be necessary for them to have made a contribution. Entitlemer will be computed at $300 per month plus one-half of their eligibility under the Chap ter 34 benefits. Services provided include peer and professional counseling, remedia and tutorial services, and certification for qualifying veterans and their dependents. Th primary concern of Veterans Services is to assist students, monitor their course work and insure the individuals utilizing veterans benefits keep in line with their prescribe curriculum and successfully complete their desired educational objective. All veteran and dependents receiving V.A. Educational Benefits are required to come to the Financia Aid Office each semester and complete a class schedule. Any change in the veteran' course of study should be cleared with the veteran's counselor in the Financial Aid Offic to insure continuation of benefits. Transfer students are reminded that the office must hav copies of all transcripts before certification can be made to the Veterans Administration fc payment.

In determining eligibility for V.A. education funds, the chart on page 47 will apply to a veterans and dependents using G.I. benefits for their training at this university. Any full-tim student who fails to pass at least three hours during any semester is subject to academi dismissal for one semester, regardless of his or her quality point standing.

Student Affairs

STUDENT AFFAIRS

The basic mission of the Division of Student Affairs is to encourage student use c personal, institutional, community, and other resources toward the goals of individu development, selffulfillment, and a responsible citizenship. Its programs and services ar directed toward assisting students in their educational and personal development.

OFFICE OF THE DEAN OF STUDENTS

The Office of the Dean of Students serves as the primary focal point for addressin student needs, issues and concerns, and serves as a resource and referral office for a faculty, staff and students. Acting in an advocacy role, the dean and assistant dean c students represent the student perspective to the university community. This office work with all segments of the university to help students develop through opportunities, advic and assistance. Within the Student Affairs Division, the Office of the Dean of Student provides consultation, new program development and assistance to the vice chancell with special projects. Specifically, the office assists in the coordination of orientation fc freshmen and transfer students, advises international, non-traditional students and con muter students, publishes the *Student Handbook and Code of Student Life,* administer the student judicial system, including violations of the Academic Honor Code; coordinate the official withdrawal process from the university for undergraduate students; and assis the Office of Federal Compliance in processing cases of discriminatory personal conduc including sexual harassment. Additionally, the Office of the Dean of Students coordinate programs and policy on rape prevention and assistance, substance abuse education an prevention, and implements developmental programs to meet assessed and perceive student needs. The office of the Dean of Students also provides supervision for the Res dence Life Program and ALTERNATIVES! the Substance Abuse Education and Preventic Program.

ALTERNATIVES!

The Alternatives! program is responsible for providing a systematic and comprehensiv set of services for substance abuse education and prevention to all segments of th university community. The center serves as a highly visible and accessible multi-medi resource area containing drug education materials, as well as information on alternatives t drug use. Personal growth and self-concept enriching experiences are provided throug alternative learning opportunities. The center serves as a clearinghouse for other campu and community resources and provides consultation, information, or referral as appropr ate. Additional educational opportunities for the entire campus are offered as needed.

The terms "substance" and "drug" are intended to include all psychoactive chemica including alcohol, stimulants, depressants, opiates, and hallucinogens.

OFFICE OF HEALTH PROMOTION

The Office of Health Promotion is responsible for implementating a wellness model for th university community. This model encourages and supports positive lifestyle choices an behaviors. The office sponsors the LivWell program designed to provide wellness opportu nities that include seminars, lifestyle and nutritional assessments, resource materials, an other health related information.

NIVERSITY UNION

The University Union exists to provide support and give direction to out-of-classroom arning. Based on the philosophy that the process of learning is not confined to the lassroom, but instead is a constant and ongoing process, the mission of the union is to cilitate the educational process by providing a laboratory experience for student growth, nd an arena for the development of cultural, social, and recreational awareness. This is ccomplished through the administration of the union facility, its programs and services, y providing resources to student organizations, and serving as the campus's central point f reference in regard to student activities and organizations.

TUDENT DEVELOPMENT SERVICES

Student Development Services, which include the Student Development Center and the areer Planning and Placement Center, provide support and assistance for students ersonal, career, social and learning skill development. The services help students build atisfying and successful college experiences and prepare for the transition from college work or to graduate study.

he John J. Burney Student Development Center

The John J. Burney Student Development Center provides confidential individual and roup counseling for personal, social, career or educational concerns. Decision-making esources for careers and college majors include a computer guidance system, interest esting, and an information library. Special assistance is offered with learning strategies, tudy, reading and exam-taking skills. Workshops are regularly scheduled on these topics s well as on personal growth, communication skills and stress management. As part of the niversity substance abuse education and prevention program, the center also provides ubstance abuse assessment, referral and treatment for faculty, staff and students.

The center acts as a clearinghouse for disabled students' concerns and assists with toring, equipment and advocacy needs. The office also administers national testing rograms such as the GRE, GMAT, NTE, MAT and LSAT.

Consulting and referral services are provided by the center's staff for university faculty, taff and student groups.

areer Planning and Placement Center.

The Career Planning and Placement Center provides career planning and placement ser- ices to students and alumni of UNCW. Assistance in developing career plans is available rough individual advising, workshops and seminars. The office also provides information nd counseling on careers, specific job requirements, employers, and graduate school rograms. Students are encouraged to use these services early in their college career.

The office publicizes specific job openings (part-time, summer and full-time, and state nd federal government opportunities); makes individual referrals; schedules recruiting isits; maintains company recruiting literature; and provides information about public and rivate schools, and state and federal government opportunities.

Seniors should register with the Career Planning and Placement Center in their junior r early in their final year to establish a credentials file and to avail themselves of all lacement services including resume writing, interviewing skills planning a job search.

ESIDENCE LIFE PROGRAM

The Office of Residence Life, located in Residence Life Activity Center, is responsible r the development of educational, cultural and social programs to enhance student

life on campus. The purpose of the Residence Life program is to create an environmen conducive to academic and social growth within the halls. The office is responsible for the supervision of all students who reside in the residence halls and the apartment buildings.

The university has residence hall facilities for approximately 778 men and 778 women ir modern, conveniently located residence halls. In addition, 400 spaces are available in 13 apartment buildings. All rooms are air-conditioned and furnished, and laundry facilities are available. Residence hall students are required to take their meals in the university caf eterias under a five-day or seven-day plan. Students living in the apartments are required to take a limited meal plan.

FOOD SERVICE

The university operates two modern, air-conditioned cafeteria buildings. Short-order food service is available in the University Hawk's Nest located in the University Union. Service is on a cash basis for non-boarding students.

STUDENT HEALTH AND WELLNESS CENTER

The Student Health and Wellness Center (SHWC) located in the Student Support Cente is open 8:30 a.m. to 5:00 p.m., Monday through Friday. After 5:00 p.m. during the week and all weekend a Hanover Medical Specialists physician is on call for urgent or emergency medical care.

The Student Health and Wellness Center (SHWC) provides diagnosis and treatment o general and accute medical problems. The health fee is part of the student fee and entitles students taking 6 or more credit hours* (living on or off campus) to health care services. The SHWC is staffed by one physician, one physician assistant, one family nurse practitioner, three nurses, a medical assistant, and the coordinator of health promotion.

In addition to the treatment of general medical problems, the scope of services include laboratory testing to diagnose a variety of medical problems, allergy injections, gynecologic examinations and counseling, weight control and nutrition counseling, smoking cessation crisis intervention, and referral as indicated. The Office of Health Promotion provides the wellness resource center (films, books, and pamphlets) as well as opportunities fo self-health care, and programming in wellness.

Each newly admitted UNCW student is required to have the following forms on file in the SHWC prior to enrollment: 1.) a completed and up to date Report of Medica History and Physical Examination and 2.) a completed and up to date Immunizatior Record required by the N.C. Immunization Law (General Statues 130A-152).

*Students taking less than six hours will be entitled to health care services upon paymen of the health fee and will be required to have the above forms on record.

STUDENT HEALTH INSURANCE

The Student Health Fee covers most medical care given at the Student Health and Wellness Center on a prepaid basis. The health fee will not cover the costs of a studen who requires hospitalization or specialty care. It is strongly recommended that students who are not covered for major medical expenses (serious injuries due to accidents o hospitalization) under their family health insurance contact the SHWC or the Office of the Dean of Students for information and forms regarding the Student Group Health Insurance Plan available at a nominal cost through the university.

ELEASE OF "DIRECTORY INFORMATION"

The University of North Carolina at Wilmington has routinely made public certain formation about its students. Typically, UNCW releases the names of student who e selected by the various honorary societies, receive scholarships, make the Dean's st, hold offices, or are members of athletic teams. The annual commencement program ublishes the names of persons who have received degrees from UNCW during the year.

The Family Educational Rights and Privacy Act defines the term "directory information" include the following information: the students name, address, telephone listing, date nd place of birth, major field of study, participation in officially recognized activities and ports, weight and height of members of athletic teams, dates of attendance, degrees and vards received, and the most recent previous educational agency or institution attended the student. The university will make public information about each student limited to ese categories in ways such as those described above. Of course, information from all ese categories is not made public in every listing.

Students who do not wish to have any or all of such "directory information" made public thout their prior consent must notify the Office of the Registrar of this fact in a signed nd dated statement specifying items not to be published. This notice must be received the Office of the Registrar by the end of the registration period for the semester or ssion of first enrollment or, after an absence, of re-enrollment and by the end of each ll registration thereafter.

TUDENT CONDUCT

The filing of an application of admission shall be construed as both an evidence and edge that the applicant accepts the standards and regulations of The University of orth Carolina at Wilmington and agrees to abide by them. Each student, by the act of gistering, is obligated to obey all rules and regulations of the university catalogue and her university publications. The university reserves the right to ask for the withdrawal of ny student who refuses to adhere to the standards of the institution.

TATEMENT OF UNIVERSITY POLICIES, PROCEDURES AND ISCIPLINARY ACTIONS IN CASES OF DISRUPTION OF DUCATIONAL PROCESS

A policy statement was adopted by the Board of Trustees of the former consolidated niversity of North Carolina on October 26, 1970. It is set forth in Chapter V of the *Code rovisions Governing the University of North Carolina,* and is set forth in full in the *Student andbook and Code of Student Life.*

OLICY STATEMENT ON ILLEGAL DRUGS

Students, faculty members, administrators, and other employees of The University of orth Carolina at Wilmington are responsible, as citizens, for knowing about and comply-g with the provisions of North Carolina law that make it a crime to possess, sell, deliver, manufacture those drugs designated collectively as "controlled substances" in Article 5 Chapter 90 of the North Carolina General Statues. A copy of this law is available in the llowing offices: Personnel, Dean of Students, and Academic Affairs. Any member of the niversity community who violates that law is subject both to prosecution and punishment the civil authorities and to disciplinary proceedings by UNCW. In accordance with olicy adopted by the Board of Governors of The University of North Carolina and the oard of Trustees of UNCW, disciplinary proceedings against a student, faculty member, dministrator, or other employee will be initiated when the alleged conduct is deemed to fect the interests of UNCW.

Penalties will be imposed for violation of the policies of UNCW only in accordance with procedural safeguards applicable to disciplinary actions against students, faculty members, administrators, and other employees. The penalties that may be imposed range from written warnings with probationary status to expulsions from enrollment and discharges from employment. For more information, please refer to the *Code of Student Life,* The Code of The University of North Carolina (Section 603) and Personnel Procedure No. 610.

Every student, faculty member, administrator, and other employee of UNCW is responsible for being familiar with, and complying with, the terms of the policy on illegal drugs adopted by the Board of Governors of The University of North Carolina and the Board of Trustees of UNCW. Copies of the full text of the policy appear below as well as in the Code of *Student Life, Faculty Handbook,* and it is available in the Personnel Office.

POLICY ON ILLEGAL DRUGS

Introduction

The fundamental purpose of The University of North Carolina at Wilmington (UNCW) is to maintain an environment that supports and encourages the pursuit and dissemination of knowledge. That environment is damaged by illegal drug use. Therefore, all members of the academic community, students, faculty members, administrators, and other university employees, share the responsibility for protecting the environment by exemplifying high standards of professional and personal conduct.

Policy and Program

A. The illegal use, possession, sale, delivery and/or manufacture of drugs will not be tolerated and may be grounds for immediate suspension or dismissal of students, faculty members, administrators and other university employees.

B. UNCW policies and programs are intended to emphasize:
   1. The incompatibility of the use or sale of illegal drugs with the goals of the university.
   2. The legal consequences of involvement with illegal drugs.
   3. The medical implications of the use of illegal drugs.
   4. The ways in which illegal drugs jeopardize an individual's present accomplishments and future opportunities.

C. UNCW will provide a systematic substance abuse education and prevention program designed to reach all segments of the campus community. To assist in accomplishing this mission, the Center for Substance Abuse Education and Prevention is developing a well-integrated centralized program that is a focal point for campus substance abuse education, training and prevention, and will monitor the effectiveness of programs for constituencies served. This Center provides substance abuse counseling and referral services on campus and in the external community. It also provides consultative services to offices and agencies in the university environment and collaborates with the employees assistance coordinator in the university Personnel Office to develop counseling and referral services for faculty and staff desirous of seeking assistance off campus. This UNCW policy is presented within the four areas of education, counseling and rehabilitation, enforcement and penalties, and assessment.

ducation

A. Provide a system of accurate, current information exchange on the health risks and symptoms of drug use for students, faculty and staff.

B. Promote and support institutional activity programming that discourages substance abuse.

C. Establish collaborative relationships between community groups and agencies and the institution for education, treatment and referral.

D. Provide training programs for students, faculty, and staff to enable them to detect problems related to drug use, and to refer persons with these problems to appropriate assistance.

E. Include information about drugs for students and family members in the student orientation programs. The use of prescription and over-the-counter drugs will be addressed.

F. Support and encourage faculty in incorporating education about drugs into the curriculum where appropriate.

G. Develop a coordinated effort across campus for drug related education, treatment and referral.

ounseling and Rehabilitation

A. UNCW provides information about drug counseling and rehabilitation services available to members of the university community. Persons who voluntarily avail themselves of university services can be assured that applicable professional standards of confidentiality will be observed. Counseling and rehabilitation services include:
   1. Provision of training for professional staff and student staff on drug abuse information, intervention and referral.
   2. Conducting education programs for students who have demonstrated abusive behavior with drugs.
   3. Conducting individual and group counseling for members of the university community with drug problems.
   4. Conducting drug abuse assessments.
   5. Coordinating referral and follow up of campus individuals and developing a referral and follow up mechanism in collaboration with the employee assistance coordinator in the Personnel Office.
   6. Organizing campus self-help groups.
   7. Providing consultation, information and referral for students, staff and faculty with drug problems.
   8. Designing and developing referral opportunities for members of the university community who desire to seek professional assistance beyond the campus. This will be done in cooperation with the employee assistance coordinator in the Personnel Office.
   9. Providing with peer involvement a system of intervention and referral services for students, faculty and staff.

B. In providing the above prevention strategies, it is recognized that some campus constituents may prefer professional assistance external to the campus. The campus community substance abuse education and prevention program coordinator will collaborate with the employee assistance coordinator in the development of appropriate referral mechanisms for these individuals. A listing of off campus resources for assistance and referral will be made available for those who choose that option. In the development of this program, it is desired that faculty, students, administrators and other employees be comfortable in the manner in which they are served and have a choice in the selection of appropriate assistance. Individuals served in the counseling program on campus can be assured that confidentiality will be maintained and that they will be served by professionals.

Enforcement and Penalties

A. Enforcement

In seeking to enforce established university policy, The University of North Carolina at Wilmington will:

1. Publicize all drug policies.
2. Consistently enforce drug policies.
3. Exercise appropriate disciplinary action for drug policy violations.

B. Penalties

UNCW shall take actions necessary, consistent with state and federal law and applicable university policy, to eliminate illegal drugs from the university community. University policy on illegal drugs will be publicized in the university catalog, student and faculty handbooks, student orientation materials,letters to students and parents, residence hall meetings and faculty and employee meetings.

Students and faculty members, administrators, and other employees are responsible as citizens for knowing about and complying with the provisions of the North Carolina law that makes it a crime to possess, sell, deliver, or manufacture drugs designated collectively as "controlled substances" in Article V, Chapter 90 of the North Carolina General Statutes. Any member of the university community who violates that law is subject both to prosecution and punishment by the civil authorities and to disciplinary proceedings by UNCW. It is not "double jeopardy" for both the civil authorities and the university to proceed against and punish a person for the same specified conduct. The university will initiate its own disciplinary proceedings against the student, faculty member, administrator, or other employee when the alleged conduct is deemed to affect the interest of the university.

Penalties will be imposed by UNCW in accordance with procedural safeguards applicable to disciplinary actions against students (see *Code of Student Life*, Section II), faculty members (see Policies of Academic Freedom and Tenure, UNCW, Section VII), and administrators and other employees (see Procedure No. PER 6.10 and Personnel Policies of Designated Employment Exempt from State Personnel Act - EPA Administrative Positions).[1]

The penalties to be imposed by the university may range from written warning with probationary status to expulsion from enrollment and discharge from employment; however, the following minimum penalties shall be imposed for the particular offenses described.

1. Trafficking in Illegal Drugs
   a. For a first offense involving the illegal manufacture, sale or delivery, or possession with intent to manufacture, sell, or deliver any controlled substance identified in Schedule I, North Carolina General Statutes 90-89, or Schedule II, North Carolina General Statutes 90-91 through 90-94, (including, but not limited to, heroin, mescaline, lysergic acid diethylamide, opium, cocaine, amphetamine, methaqualine), any student shall be expelled and any faculty member, administrator, or other employee shall be discharged.
   b. For a first offense involving the illegal manufacture, sale or delivery, or possession with intent to manufacture, sell or deliver, any controlled substance identified in Schedules III through VI, North Carolina General Statutes 90-91 through 90-94, (including, but not limited to, marijuana, pentobarbitals, codeine), the minimum penalty shall be suspension from enrollment or from employment for a period of at least one semester or its equivalent.
      For a second offense, any student shall be expelled and any faculty member, administrator, or other employee shall be discharged.
2. Illegal Possession of Drugs
   a. For a first offense involving the illegal possession of any controlled substance identified in Schedule I, North Carolina General Statutes 90-89, or Schedule II, North Carolina General Statutes 90-90, the minimum penalty shall be suspension from enrollment or from employment for a period of at least one semester or its equivalent.
   b. For a first offense involving the illegal possession of any controlled substance identified in Schedules III through VI, North Carolina General Statutes 90-91 through 90-94, the minimum penalty shall be probation, for a period to be determined on a case-by-case basis. A person on probation must agree to participate in a drug education and counseling program, consent to regular drug testing, and accept such other conditions and restrictions, including a program of community service as the chancellor or chancellor's designee deems appropriate. Refusal or failure to abide by the terms of probation shall result in suspension from enrollment or employment for any unexpired balance of the prescribed period of the probation.
   c. For the second or other subsequent offenses involving the illegal possession of controlled substances, progressively more severe penalties shall be imposed, including expulsion of students and discharge of faculty members, administrators, or employees.
3. Suspension Pending Final Disposition
   When a student, faculty member, administrator, or university employee has been charged by UNCW with a violation of policies concerning illegal drugs, he or she may be suspended from enrollment and/or employment before initiation or completion of regular disciplinary proceedings if, assuming the truth of the charges, the chancellor, or in the chancellor's absence, the chancellor's designee concludes that the person's continued presence within the university community would constitute a clear or immediate danger to the health or welfare of other members of the university community; provided that, if such a suspension is imposed, an appropriate hearing of the charges against the suspended person shall be held as promptly as possible thereafter.

Assessment

A. UNCW shall in its effort to continually assess the campus environment:
   1. Appraise the institutional environment as an underlying cause of drug abuse.
   2. Assess campus awareness, attitudes, and behaviors regarding the use of drugs and employ results in program development.
   3. Collect and use drug related summary information from policy and security reports to guide program development.
   4. Collect and use summary health, counseling, and client information to guide program development.
   5. Collect summary data regarding drug related disciplinary actions and use it to guide program development.

B. Annually, the chancellor shall submit to the Board of Trustees a report of campus activities related to illegal drugs for the preceding year. The report shall including the following:
   1. A listing of major education activities conducted during the year;
   2. A report on any illegal drug related incidents, including any sanctions imposed;
   3. An assessment by the chancellor of the effectiveness of the campus program; and
   4. Any proposed changes in university policy on illegal drugs.

   The chancellor shall provide a copy of this report to the president.

[1]Rules of the State Personnel Commission govern the disciplinary actions that may be taken against SPA employees. Under current Commission regulations discharge, rather than suspension, is the applicable penalty for SPA employees in those instances where this policy otherwise requires suspension.

Student Life

STUDENT LIFE

UNIVERSITY UNION

Student life is enriched at The University of North Carolina at Wilmington by a broad spectrum of activities, most of which occur in or around the University Union. The union is a 53,000 square-foot facility which houses student organization offices, conference rooms, recreation and games facilities, lounges, study areas, snack bar, rental lockers the University Information Center, U.S. Post Office, Wachovia Banking Machine, and an assortment of student services. With the guidance of the Office of Student Activities students are provided opportunities to plan, execute, attend, and evaluate a wide variety of programs and activities. With the belief that education is not bound to the classroom, it is the University Union's goal to educate, entertain and enlighten the university community while providing a laboratory for student growth and an arena for development of cultural social and recreational awareness.

STUDENT ACTIVITIES OFFICE

The Office of Student Activities, located in the University Union, works to expand and complement the students's education by providing support to the approximately seventy student organizations that are officially registered on campus. The Student Activities Office assists organizations with the planning, execution and evaluation of events and activities that are not only entertaining, but also educational. The office provides expertise in the areas of leadership development programs, activity programming, contract negotiation university policy and procedure explanations, budget preparation, publicity and promotion and organization development.

THE LEADERSHIP CENTER

The Leadership Center provides a comprehensive program which promotes student and organizational development and awareness of contemporary issues through leadership training, education and development activities. These activities are varied, but include workshops, retreats, publications, speakers, resources, seminars, consultations, and self assessments. Through collaboration among Student Affairs staff and academic faculty, a cohesive program is encourages students how to recognize, evaluate and cultivate the potential strengths within themselves and others. These programs improve the quality of the overall campus experience by providing opportunities to learn about and practice leadership. Ultimately, the program goal is to create a dynamic process that will continue after the students college experience and encourage them to improve the world as active citizens in our changing democracy.

MINORITY AFFAIRS OFFICE

The Minority Affairs Office is responsible for the implementation of programs and activities designed to enhance the overall experiences of minority students at UNCW. Through direct sponsorship of or participation in Minority Visitation Day, orientation, workshops recruitment, a minority mentor program, the tutorial assistance program, and other activities, the office provides an added dimension to the traditional services offered to UNCW students. All students are invited to visit the office, in room 211 of the University Union, or call 919-395-3832, to discuss ways in which the office may be of service.

NIVERSITY INFORMATION CENTER

The Information Center, located on the first floor of the University Union, provides a variety information on campus, student and community activities. The center also sells discount ovie tickets, concert tickets, and is the repository for campus lost and found items.

OSTAL SERVICES

A U.S. Post Office, which provides all postal services, is in the University Union, UNCW rovides each student with a post office box where all mail (except grades) is delivered. his box is the official means in which student receive university mail.

TUDENT GOVERNMENT ASSOCIATION

The core of student life at the university is the Student Government Association. Officers nd at-large senators are elected by the student body, and other senators by classes ithin the student body.

The association is a democratic organization, permitting expression of student opinion, orking for the best interest of the university and upholding a high standard of morals nd conduct. It is responsible for the disbursement of half of the student activity fee. his money supports the Student Government Association in its objectives and campus ctivities. The association is a member of the North Carolina Association of Student overnments.

SSOCIATION FOR CAMPUS ENTERTAINMENT (ACE)

The Association for Campus Entertainment coordinates the various student produced vents on campus. It provides a diversified schedule of programs, activities, and events at promote and provide opportunities for educational, social, recreational, and cultural rowth for students and the campus community. The ACE is comprised of the following ommittees: Fine Arts/Lecture, Film-Video, Concert, Coffeehouse, Minority Arts, and Spe-ial Events. The board is a member of the National Association for Campus Activities.

TUDENT ORGANIZATIONS

A variety of social, academic, and service organizations enhance student life at UNCW. ational sororities and fraternities are established on the campus to recognize students for eir leadership and service activities. Several departments in the university have locally nd nationally organized groups to stimulate interest in specific areas and to develop rofessional attitudes. Students are encourage to contact the Office of Student Activities r specific information relative to a student organization.

EDIA AND PUBLICATIONS

The *Seahawk,* the student newspaper, is published weekly. Its staff is composed entirely f students.

he *Fledgling,* the student-produced yearbook, contains the usual features of a college nnual.

The *Atlantis,* a literary magazine, is published by students each semester.

The *Channel Marker* is a calendar published monthly by the Student Activities Office to rovide information regarding the dates and times of campus events and activities.

The *Student Handbook and Code of Student Life* is the primary source of information egarding university regulations and campus life.

WLOZ, the campus cable radio station is completely run by students. The station roadcasts daily.

ATHLETICS

The university holds membership in the National Collegiate Athletic Association and th Colonial Athletic Association. Varsity intercollegiate teams are fielded for men in baske ball, cross country, baseball, golf, soccer, tennis, swimming, and water polo. Varsi intercollegiate teams for women are fielded in basketball, softball, tennis, volleyba swimming, golf, and cross county.

In addition, an intramural sports program is provided for the student body. The progra is based on both a competitive and recreational basis, and participation is voluntary.

PERFORMING ENSEMBLES IN MUSIC

Membership is open to any student who has had instrumental or vocal experience, wi the approval of the director of the particular ensemble. Any participant may earn cred Participation by non-music majors may be supplemented by private lessons, also f credit. Participation in either a vocal or an instrumental organization is required of all mus majors.

Instrumental Ensembles

The UNCW Wind Ensembles is organized each semester to provide instrumental mus experience for those students who desire it. The Wind Ensemble presents at least tw concerts per year. The UNCW Jazz Ensembles perform several concerts on and c campus each semester and perform an annual guest artist spring concert. Developme of performance in the jazz idiom is stressed. These groups are open to any student wh has had instrumental experience and the approval of the instructor. Auditions for eac group are held at the beginning of each semester.

The Wilmington Symphony Orchestra, Inc., rehearses on campus and UNCW studen may enroll and receive credit for participating in this group.

Faculty, student and senior recitals are presented free of charge and are open to th public as well as to all students.

The music division also maintains an Electronic Music Studio.

VOCAL ENSEMBLES

The University of North Carolina at Wilmington Concert Choir is organized each semest to provide vocal musical experience for those students who desire it. Membership is ope to any student in the university, with the approval of the director, and any participant ma earn credit. Participation by non-music majors may be supplemented by private lesson also for credit.

The University Concert Choir and small ensemble, The Chamber Singers, regular provide music for university functions, appear on radio and television, and act as amba sadors from the university at a wide spectrum of community functions.

The UNCW Concert Choir's yearly activities have included at least two on-campu concerts and an extensive tour during the spring holidays. On occasion the choir ha participated in large, joint stage productions of opera and musical comedies with th drama division.

THE UNIVERSITY THEATRE

The University Theatre is a student-oriented theatre dedicated to the continuing develop ment of all theatre practitioners. It strives to produce a total theatrical experience to suppo the educational, creative, and recreational potential of a campusbased theatre.

Two major productions are presented each semester, with student productions presented n demand. Participation is not limited to dramatic art students, but is open to all university ersonnel and community residents.

NIVERSITY READERS THEATRE

The University Readers Theatre provides students with an opportunity to participate in oth the performance and technical production of a readers theatre script. Students tend open audition and may take part in the reading, publicity, lighting, set design and anaging of the show.

One major production is usually presented each semester. During semesters when the eaders theatre course is offered, class members of that course will comprise the Uniersity Readers Theatre troupe. Interested students may inquire further at the Fine Arts epartment.

ORENSICS TEAM

The University Forensics Team participates in a number of tournaments each year in addion to hosting the annual Blockade Runner Invitational Tournament on the UNCW campus. tudents gain experience in public speaking, interpretation, research and argumentation. lembership is open to all students.

RT EXHIBITIONS

Monthly exhibitions of painting, sculpture and the graphic arts are held in the galleybby of Kenan Hall. Student art is often featured. All exhibitions are open to the public ithout charge.

HONOR SOCIETIES AND AWARDS

HE HONOR SOCIETY OF PHI KAPPA PHI

Phi Kappa Phi is an honor society recognizing excellence of scholarship in all academic isciplines. A member of the association of College Honor Societies, it was founded at the niversity of Maine at Orono in 1897 and numbers about 250 chapters nationwide. Chapter umber 222 at The University of North Carolina at Wilmington was chartered on May 1, 980. Seniors and second semester juniors are elected to membership based on integrity f character and class standing in the upper 5 percent for juniors or upper 10 percent for eniors.

HI ETA SIGMA NATIONAL HONOR SOCIETY

Phi Eta Sigma is a national college scholastic honor society for freshmen. A member of e Association of College Honor Societies, it was founded at the University of Illinois on larch 22, 1923. The University of North Carolina at Wilmington Chapter of Phi Eta Sigma as chartered on March 17, 1979.

The goal of Phi Eta Sigma is to encourage and reward high scholastic attainment among eshmen. At the close of their first academic year freshmen are eligible for membership if ey have a cumulative grade point average of 3.5 or better with no grade lower than "C" n thirty hours or more course work at UNCW.

SIGMA DELTA PI, National Collegiate Hispanic Honor Society

Sigma Delta Pi is a national collegiate honor society for students of the Spanish language and Hispanic literature and culture. A member of the Association of College Honor Societies, it was established at the University of California, Berkeley, on November 14, 1919. The Rho Lambda Chapter of Sigma Delta Pi was chartered at The University of North Carolina at Wilmington on April 22, 1988. The primary purpose of Sigma Delta Pi is to encourage and honor those who seek and attain excellence in the study of Hispanic language, literature and culture.

PSI CHI NATIONAL HONOR SOCIETY IN PSYCHOLOGY

Psi Chi is the national honor society in psychology. It was founded in 1929 in New Haven, Connecticut to encourage, stimulate and maintain excellence in scholarship, and to advance the science of psychology. Psy Chi is an affiliate of the American Psychological Association and a member of the Association of College Honor Societies. The University of North Carolina at Wilmington Chapter of Psi Chi was chartered on May 1, 1989 and is one of approximately 675 chapters nationwide.

HOGGARD MEDAL FOR ACHIEVEMENT

A medal, presented through the generosity of the late Dr. John T. Hoggard, is awarded annually to the graduating senior who, in the opinion of the faculty, has shown the most improvement during his or her years at the university. The medal is presented each year at commencement.

ALUMNI ASSOCIATION SCHOLASTIC ACHIEVEMENT AWARD

The Alumni Association of The University of North Carolina at Wilmington each year at commencement presents an award to the senior who has attained the highest academic average in the graduating class.

ADRIAN D. HURST AWARD

Established by Adrian D. Hurst, emeritus professor of mathematics, this award recognizes a UNCW junior or senior math major who has achieved the highest overall academic grade point average. The award is presented each spring in the form of a plaque.

BIOLOGICAL SCIENCES ACHIEVEMENT AWARD

This award was established by the faculty of the Department of Biological Sciences to honor annually the graduating senior biology major who has achieved the highest academic standing. The recipient is identified on a permanent plaque in Friday Hall.

THE WALTER SCHMID PHYSICS AWARD

This award has been established in honor of the late Walter Schmid, engineer and inventor, to reward a senior bachelor of science physics major for excellence in physics. The award consists of an engraved plaque and a physics encyclopedia.

WHO'S WHO AMONG STUDENTS IN AMERICAN UNIVERSITIES AND COLLEGES

The University of North Carolina at Wilmington participates in this national organization which lists in its annual directory outstanding campus leaders. Selection of the candidates is made by a nominating committee composed of faculty, administration and students.

Academic Regulations

ACADEMIC REGULATIONS

ORIENTATION

All new students are required to attend an orientation program prior to the beginning of fal and spring semesters. Its purpose is to acquaint students with opportunities and services at the university and to provide information needed to register for classes. Students are notified by mail of the time to report for the activities involved.

All freshmen, including transfer freshmen (less than 24 semester hours) are assigned to the General College for advising purposes. All other students are assigned for advising to an academic department or professional school. Unclassified students may receive advising assistance in the General College Advising Center located on the second floor of Randall Library.

REGISTRATION

Registration is limited to the time period specified in the university calendar of events and other days as announced by the Registrar's Office. Classes may not be added after the last day of registration. Students may take 12 to 18 hours without restriction. Students who have a cumulative quality point average of 3.5 may be allowed, with special permission of the appropriate dean, to carry a maximum of 21 semester hours.

PREREGISTRATION

Preregistration for students currently enrolled is held each semester. Students who complete preregistration and pay fees by the designated date are registered except in the event that they are declared academically ineligible at the end of the preceding semester.

TRANSFER OF CREDIT

Students transferring from a two-year institution may receive up to 62 semester hours of academic credit from all institutions attended. Correspondence courses (15 s.h. maximum), advanced placement, CLEP credit and military credit will be included in this total.

Students transferring from a four-year institution may receive up to a maximum of 94 semester hours from all institutions attended. Correspondence courses (15 s.h. maximum), advanced placement, CLEP credit and military service credit will also be included in this total.

Credit earned in another institution with a grade of "C" or better is accepted by the university if the work transferred is comparable to offerings of The University of North Carolina at Wilmington. Hours attempted and quality points earned at other institutions are not used in computing grade point averages except on the case of students applying to enter the teacher education program, the nursing program and of seniors graduating with honors and/or distinction.

ADVANCED PLACEMENT

The University of North Carolina at Wilmington participates in the advanced placement programs of the College Entrance Examination board. A brochure listing the examinations, required minimum scores, course equivalents, and credits awarded is available through the Registrar's Office or the Office of Admissions. A freshman who scores 3 or above on the Advanced Placement test will receive appropriate college credit and advanced placement. Students taking Advanced Placement tests should have the score reports

ent to the Registrar's Office for evaluation concerning placement and credit. Individual departments have determined the specific courses for which credit will be given.

Students who are talented and well prepared may also receive credit for a variety of courses by achieving a passing score on one of the College-Level Examination Program (CLEP) tests. Tests are offered and can be registered for biannually at the Burney Student Development Center.

Students who have been exempted with credit from courses at an accredited college or university may be exempted with credit from appropriate courses at The University of North Carolina at Wilmington, as outlined in the test brochure. When the exemption is based on a test result, the student should have a copy of the score report sent to the Office of Admissions. In those cases in which a student has demonstrated his knowledge of particular field by more advanced course work, exemptions may be granted on an individual basis by the appropriate department chairperson.

ACADEMIC HONOR CODE

The University of North Carolina at Wilmington is committed to the proposition that the pursuit of truth requires the presence of honesty among all involved. It is therefore this institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the university community are encouraged to report occurrences of dishonesty, honesty is principally the responsibility of each individual.

Academic dishonesty takes many forms, from blatant acts of cheating, stealing, or similar misdeeds to the more subtle forms of plagiarism, all of which are totally out of place in an institution of higher learning. Reporting and adjudication procedures have been developed to enforce the policy of academic integrity, to ensure justice, and to protect individual rights. Complete details may be found in the current *Student Handbook Code of Student Life* and in the *Faculty Handbook*.

GRADES AND REPORTS

The University of North Carolina at Wilmington uses the quality point system and semester hour credit for calculating student achievement. Grade symbols used are: A-excellent, B-good, C-average, D-passing, F-failure, I-incomplete, W-withdrew.

Quality points are assigned as follows: 4 for a grade of "A", 3 for a grade of "B", 2 for a grade of "C", 1 for a grade of "D". No quality points are given for a grade on "I", "F", or "W". The quality point ratio is determined by dividing the accumulated number of quality points earned by the accumulated number of semester hours attempted. Hours attempted for which a grade of "I" or "F" has been assigned must be included in this calculation.

At the discretion of the instructor, a student may be given a grade of incomplete when the work in the course has not been completed for reasons beyond the control of the student. All incomplete grades must be removed according to a deadline established by the instructor, not to exceed one calendar year from the end of the semester in which the incomplete was given; otherwise the "I" becomes "F".

Grade reports are mailed to the student at the end of each semester.

CHANGE OF MAJOR

With one exception, all requests for a change of major must be completed in the General College Advising Center. The only exception is for those students changing from one department in a professional school to another department in the same school. These requests must be completed in the office of the dean of that school.

DEAN'S LIST

To be included in the Dean's List at the close of each semester, students must meet one of the following criteria:

(a) Students carrying 12-14 hours must earn a quality point average of 3.5 or better with no grade less than B.

(b) Students carrying 15 hours or more must earn a quality point average of 3.2 or better with no grade less than B.

Students carrying 11 hours or fewer are not eligible for the Dean's List.

WITHDRAWAL POLICY FOR UNDERGRADUATE STUDENTS

A student is allowed to withdraw from the university or from individual courses through the first week of the semester without having a grade entered on the academic record. Inclusive of the second through the sixth week of the semester, any student who withdraws from the university or from individual courses will receive a grade of W. A grade of W will not affect the student's grade point average. Beginning with the seventh week of the semester, a grade of F will be assigned for each course withdrawal.

To withdraw from an individual class or classes, the student must submit a Schedule Revision Form(s) to the Registrar's Office prior to the last day for withdrawal as indicated in the university calendar of events. To withdraw from all classes , the student must process an official Withdrawal Form through the Office of the Dean of Students. If the student is unable to appear in person to withdraw, written notice must be sent to the Office of the Dean of Students.

Should extenuating circumstances warrant, the grade of F assigned for course withdrawal may be changed to a W. This determination will be made by the dean of the school or college in which the student is enrolled. It is the student's responsibility to initiate the appeal. The decision of the dean is final and must be rendered prior to the end of the semester in which the withdrawal occurred.

AUDITING

The auditing of courses without credit is approved by special permission of the registrar and of the instructor involved. Individuals not regularly enrolled as students in the university who wish to audit courses will be classified as special students and will be required to pay regular tuition and fees. University students in regular status will be permitted to audit courses and must pay the same tuition and fees required for credit courses.

REPEATING OF COURSES

Students who receive a grade of "C" or better in a course may not repeat the course but may audit without credit.

Students who receive a grade of "D" in a course taken at UNCW may, with the permission of their academic advisor and the appropriate academic dean, repeat the course once at UNCW and receive the hours credit and the grade. The original grade will not be used in determining the grade point average of the student although it will remain a part of the student's permanent academic record. This policy is effective beginning with the fall semester, 1985.

Students who receive a grade of "D" or "F" in a course taken at UNCW may, with the permission of their academic advisor and the appropriate academic dean, repeat the course more than once at UNCW, However, the credit hours of the course and the grade received will be included in determining the grade point average of the student each time the course is repeated.

Course repeat approval forms are available in the Registrar's Office. Students must omplete this form and have it approved by the academic advisor and the appropriate cademic dean before repeating a course.

FF-CAMPUS COURSES

Students who enroll in off-campus courses (extension, correspondence, or summer chool) and wish to apply credit in these courses toward a degree at The University of orth Carolina at Wilmington must obtain written approval of the advisor, the department hairman, and the appropriate dean before registering for the course. This permission ust be on file in the Registrar's Office prior to leaving campus.

RADE APPEAL PROCEDURE

Any student considering a grade appeal should understand that each faculty member as the academic freedom and responsibility to determine grades according to any ethod chosen by the faculty member which is professionally acceptable, communicated everyone in the class, and applied to all students equally. However, prejudiced or apricious academic evaluation by a faculty member is a violation of a student's rights nd is the valid ground for a grade appeal.

Any student who contests a course grade shall first attempt to resolve the matter with the structor involved. Failing to reach a satisfactory resolution, the student may appeal the rade in accordance with the procedures outlined below. These procedures are not to be sed in cases involving student academic dishonesty. An appeal must be made not later an the last day of the next succeeding regular semester.

1. The student shall present the appeal in writing to the chairperson of the department ithin which the contested grade was awarded. The written statement shall limit itself to tations of evidence pertaining to the valid ground for the appeal. By conferring with the udent and the instructor, the chairperson will seek resolution by mutual agreement.

2. Failing such resolution the department chairperson shall transmit the written appeal to e appropriate dean who will convene the Grade Appeals Committee.

3. The Grade Appeals Committee shall consist of the convening dean and five faculty embers appointed by the dean. If the committee affirms the instructor's decision, the ean will notify in writing the faculty member, the student, and the department chairperson s appropriate. If the committee supports the student's appeal, it shall prescribe the ethod by which the student will be reevaluated. The grade resulting from the prescribed evaluation is final and may not be further appealed.

LASS ATTENDANCE

Students are expected to be present at all regular class meetings and examinations for e courses in which they are registered. All faculty members are responsible for setting olicy concerning the role of attendance in determining grades for their classes. It is the sponsibility of the students to learn and comply with the policies set for each class in hich they are registered.

INAL EXAMINATION POLICY

University policy requires the scheduling of final examinations. Under this policy, the final xamination schedule provides a three-hour period for each examination and allows a aximum of three examinations per day. The length of the final examination, up to a maxium of three hours, is at the discretion of the instructor.

The final examination schedule is published at the beginning of each semester. Courses ffered during the day have final examinations during the day (two per day). Night courses ave final examination at night (one per night).

A student who is scheduled to take three final examinations in one calendar day ma have one rescheduled by notifying the three instructors and the appropriate deans of thi desire at least two weeks before the beginning of the final examination period. It will b the responsibility of the three instructors, working with the student, to reschedule one c the examinations and to do so inform the student and the appropriate deans at least on week before the beginning of the final examination period.

Rescheduling of a final examination for an entire class may be done only with the approva of the appropriate dean.

CLASSIFICATION OF STUDENTS

Students are classified as freshmen, sophomores, juniors, and seniors. Semester hour passed are used to determine these classifications. In order to graduate in eight semes ters, a student must average 31 hours each year.

The required number of hours passed for each classification is as follows:

Less than 27 semester hours credit - Freshman
From 27-58 semester hours credit - Sophomore
From 59-88 semester hours credit - Junior
More than 88 semester hours credit - Senior

Retention, Dismissal and Re-admission

The University of North Carolina at Wilmington both encourages and requires scholarship In order to remain at the university, all students must meet the quality point requirements a outlined below.

RETENTION CHART

Total Hours Attempted	Required Quality Point Average for Eligibility To Continue in the University
6-26	1.2
27-58	1.5
59-88	1.8
89 or more	2.0

Transfer students are placed in the above retention chart based on total hours transferre from all institutions attended. Transfer students' quality point averages are computed on on work attempted through The University of North Carolina at Wilmington.

Students who do not meet the minimum quality point requirement for retention at the cor clusion of the spring semester will be declared ineligible. These students will be allowe to make up deficiencies during this university's summer sessions which immediate follow the spring semester in which they were declared ineligible **and will lose the preregistration for the fall semester.** If such deficiencies are not removed in this mar ner, students will be dismissed from the university for one semester. Such students ma re-enroll for any subsequent semester if space is available. Applications for re-enrollmer are available in the Admissions Office and should be filed as early as possible to ensur acceptance. If accepted, students attend on a probationary basis and must prov themselves by meeting the required quality point average as outlined in the retentio chart. However, re-enrolled students who make a 2.0 average or better during the firs semester after returning, but who fail to reduce quality point deficiencies to the require level, will be granted one additional semester in which to meet this requirement.

A second academic dismissal is final unless eligibility for continued residence or for admission is restored by completion of sufficient work during the summer sessions at he University of North Carolina at Wilmington.

Students may, through appropriate administrative review of mitigating circumstances, be uthorized to continue with their studies on a conditional basis. Written permission must be btained from the appropriate dean prior to the beginning of the semester in which such udents wish to enroll.

Full-time students who fail to pass at least three hours during any semester are subject academic dismissal for one semester, regardless of quality point standing. Freshmen, her than transfer students, must earn at least three semester hours of credit the first emester. Students who fail to meet this requirement will be subject to academic dismissal. hese students must also meet the minimum quality point ratio on hours attempted listed in e retention table if they wish to continue in the university.

ONORS PROGRAM

A student who has a quality point average 3.2 or better (including all transfer courses tempted) over the first two and one-half years of college work (74 semester hours), no has completed at least 30 semester hours work with a 3.2 or better quality point erage at The University of North Carolina at Wilmington, and who is recommended the chairperson of the area of concentration is eligible for admission to the Honors ogram. This program involves independent study in the area of concentration, a paper porting the results of the study, and an oral examination. Honors work is not intended to place any specifically required courses.

A student who enters the Honors Program will be required to complete six semester hours honors work in the field of concentration during the last three semesters, with a maximum three semester hours credit in any one semester. The Honors Program may be entered ther at the beginning of the second semester of the junior year (on completion of 74 emester hours) or at the beginning of the first semester of the senior year.

In order to graduate with honors, a student must successfully complete the program and ave a 3.2 quality point average over all college work at the time of graduation. A student no does not retain an overall average of 3.2, however, may still receive credit for the onors project.

EQUIREMENTS FOR GRADUATION

Students may qualify for the bachelor's degree by completing successfully (1) the basic udies requirements, (2) an approved course of study in an area of concentration, (3) total of 124 semester hours of credit, and (4) a minimum quality point average of 2.0. he final 30 semester hours of course credit, including the final 15 semester hours in the oncentration, must be completed at The University of North Carolina at Wilmington.

Graduation will be certified at the end of the term in which all academic requirements are omplete. Upon completion of all requirements, the student will receive either the Bachelor Arts, the Bachelor of Science or the Bachelor of Social Work degree.

Application for graduation must be filed in the Office of the Registrar on or before the dates ecified in the University Calendar on page 5. The graduation fee is listed on page 30.

In advising and registering students, the deans, the registrar and faculty advisors try to ake certain that every student who intends to graduate from the university registers for ose courses which are required for a degree. The student, however, must assume e final responsibility for meeting the graduation requirements set forth in the university atalogue.

A student who enrolls at The University of North Carolina at Wilmington during any academic year and who earns credit for work done during the year may always graduate under the provisions of the entering catalogue or under any subsequent catalogue, provided all graduation requirements are completed within six years of the expiration date of the catalogue chosen.

REQUIREMENTS FOR A DOUBLE CONCENTRATION

A student may elect to concentrate in two separate disciplines with the permission of the chairperson of each of the departments and on the condition that the student meets all requirements for each concentration. The student who completes requirements for more than one concentration will receive only one degree, but at the time of the initial graduation the record will indicate both concentrations when the completed requirements lead to the same baccalaureate degree.

A student who returns to the university after the initial graduation to complete the requirements for a second concentration may have the additional area of concentration added to the official record upon written notification from the department chairperson that all departmental requirements have been satisfactorily met.

REQUIREMENTS FOR A SECOND BACCALAUREATE DEGREE

A student with a bachelor's degree from UNCW may receive a second baccalaureate degree if it is a different degree and a different concentration by fulfilling the following requirements:

(1) The student must meet all the requirements for the second degree and concentration.

(2) The student must complete a minimum of 30 hours in residence beyond the requirements for the first degree.

DEGREES WITH DISTINCTION

Three degrees with distinction are granted to graduating students based on all work attempted in meeting requirements for the degree as follows:

Cum Laude for an overall average or 3.50

Magna Cum Laude for an overall average of 3.70

Summa Cum Laude for an overall average of 3.90

Degrees with distinction are granted to transfer students under the following conditions:

(1) The student must have the required overall average on all work attempted (including all transfer courses attempted).

(2) The student must have the required average on work attempted at The University of North Carolina at Wilmington.

Students who complete the Honors Program satisfactorily will be graduated "With Honors in" the discipline in which the special work is undertaken.

TRANSCRIPTS

Transcripts are issued to students at the cost of $1.00 each. All requests for transcripts must be in writing.

INDEBTEDNESS

All indebtedness to the university must be satisfactorily settled before a diploma or transcript of record will be issued.

CHANGE OF NAME AND ADDRESS

It is the obligation of every student to notify the Office of the Registrar in writing of any change in name or of permanent mailing address.

Degree Requirements and Course Descriptions

ACADEMIC PROGRAMS

The University of North Carolina at Wilmington offers four-year programs leading to th Bachelor of Arts, the Bachelor of Science and the Bachelor of Social Work degree Graduate programs lead to the four-year Master of Arts, Master of Arts in Teachin Master of Business Administration, Master of Education, and Master of Science degree Professional undergraduate programs include those offered in the Cameron School Business Administration, the School of Education, the School of Nursing and the Medic Technology program in the College of Arts and Sciences. Preprofessional programs a offered in agriculture and forestry, allied health, dentistry, engineering, law, medicin optometry, pharmacy, physical therapy, and veterinary medicine. The university has sp cial programs in marine sciences and environmental studies.

DEGREES OFFERED

Areas of Concentration for the Bachelor of Arts Degree

Anthropology
Art
Biology
Chemistry
Criminal Justice
Drama
Economics
Elementary Education
English
Environmental Studies
French
Geography
Geology
History
Mathematics
Middle Grades Education
Music
Parks and Recreation Management
Philosophy and Religion
Physical Education
Physics
Political Science
Psychology
Social Science
Sociology
Spanish
Special Education
Speech Communication

Areas of Concentration for the Bachelor of Science Degree

Accountancy
Biology
Business Management
Chemistry
Computer Science
Economics
Finance
Geology
Marine Biology
Marketing
Mathematics
Medical Technology
Nursing
Physics

Area of Concentration for the Bachelor of Social Work

Social Work

Areas of Concentration for the Master of Arts Degree

English
History
Mathematics

ea of Concentration for the Master of Business Administration Degree

Business Management and Administration

Areas of Concentration for the Master of Arts in Teaching Degree

ology
emistry
glish
History
Mathematics

Areas of Concentration for the Master of Education Degree

mentary Education
ucational Administration
and Supervision
Reading Education
Special Education

Areas of Concentration for the Master of Science Degree

ology
emistry
ology
Marine Biology
Mathematics

HE GENERAL COLLEGE

The General College consists of the first year of study during which students are expected work toward fulfilling the university's basic studies requirements as outlined in this versity catalogue. All freshmen are enrolled in the General College. Upon entering the versity, many students do not know which major they will pursue. Courses prerequisite a major, combined with elective courses, provide the opportunity to explore several ferent areas of academic interest. Students who have already chosen their major or fessional program will still want to make satisfactory progress toward completing sic studies requirements combined with other required courses in their chosen field fore transferring from the General College toward the end of the freshman year, at ich time all freshmen must declare a major. Upon declaration of a major, all students then assigned an advisor in the designated department or professional school. Finally, dents with admissions deficiencies are expected to begin remedying these deficiencies ile still enrolled in the General College.

e General College Advising Program

Each student in the General College receives the personal assistance of a faculty advisor selecting courses, maintaining required scholastic standards, and planning a complete neral College educational program. Every effort is made to place students in classes opropriate to their level of preparation and achievement.

The General College Advising Program has 62 faculty advisors and is responsible for vising all students in the General College. Advising assistance is available in the neral College Advising Center from 8 a.m. - 5 p.m., Monday through Friday. Advisors y be seen either on an appointment or a drop-in-basis. Advisees are expected to see ir advisors before preregistration/registration, before dropping or adding courses and fore withdrawing from the university.

Admission to the College of Arts & Sciences

Students wishing to declare a major within the College of Arts & Sciences will request have their records transferred to the appropriate department toward the end of the secor semester of the freshman year.

Admission to the Professional Schools

Students wishing to declare a major within a professional school will request to have the records transferred to the appropriate school toward the end of the second semest of their freshman year. These students will then be assigned to that school for pr professional advising.

Students seeking admission to the Cameron School of Business Administration or th School of Education normally submit their applications to the appropriate school immec ately upon completion of the third semester of study, provided the minimal requiremen as stated in the university catalogue have been met at the time of application.

Students seeking admission to the School of Nursing must submit applications to th Office of the Dean, School of Nursing. Application forms and deadline dates are availab from the School of Nursing.

I. Requirements for Admission to the Cameron School of Business Administratio

1. Each applicant for admission must have completed a minimum of 44 semest hours with a cumulative grade point average (GPA) of 2.0 or better (4.0 scale).

2. Bachelor of Science:
   The following courses are required for admission to the Cameron School Business Administration:

   Must be completed:

ENG 101-102	English Composition I and II
MAT 111 or 115	Precalculus I or Elementary Math Analysis
ACG 201	Financial Accounting
ECN 221	Principles of Economics-Micro

   Must be completed or enrolled:

ACG 203	Managerial Accounting
ECN 222	Principles of Economics-Macro
PDS 217	Statistical Analysis for Business
MAT 151 or 161	Basic Calculus w/Applications I or Calculus with An lytic Geometry

   Bachelor of Arts:
   Same as above except that students studying for the bachelor of arts degree a not required to complete ACG 201 or ACG 203, and may substitute STT 205 f PDS 217.

3. Students may not enroll in restricted courses nor enroll in more that 15 semest hours within the school beyond preadmission courses without being forma admitted to the school.

Requirements for Admission to the School of Education and the Teacher Education Program

1. Completion of the university requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.

2. Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.

3. Completion of four semesters or two academic years of full-time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale.

4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

Requirements for Admission to the School of Nursing-Bachelor of Science Degree Program

1. Minimum overall cumulative GPA of 2.5 or better (on a 4.0 scale) is required for all course work attempted at the college or university level.

2. Minimum grade of "C" in each of the following courses or their equivalent:

BIO 240 - 241	Human Anatomy & Physiology (2 semesters)
CHM 115	Fundamentals of General and Organic Chemistry
CHM 215	Fundamentals of Organic and Biological Chemistry
BIO 246	Microbiology of Human Diseases
MAT 111	Precalculus I

3. Completion of all courses prerequisite to the nursing major. (Any foreign language deficiency must have been removed prior to admission to the program).

4. Evidence of satisfactory high school completion or equivalent.

5. Satisfactory physical and emotional health.

mission Requirements-RN Access Program

n addition to the above requirements, applicants to the RN Access program need:

1. One year nursing practice.
2. A current license to practice as a registered nurse in North Carolina.

ASIC STUDIES REQUIREMENTS

Basic Studies at The University of North Carolina at Wilmington is defined as the acquisi- n of essential skills and an introduction to the broad spectrum of studies which are basic our intellectual and cultural heritage. The program is designed to develop skills in com- ehension, composition, reasoning and analysis; to introduce students to the structure, thodology and knowledge of academic disciplines; and to address important human ncerns from disciplinary or interdisciplinary perspectives.

To qualify for the bachelor's degree from The University of North Carolina at Wilmington all students must acquire a total of forty-five (45) semester hours less exemptions.

A. English Composition (6 hours)
Required: ENG 101 and 102 (3-3)

B. Physical Education (2 hours)
Required: PED 101 (2)

C. Humanities (12-18 hours)
Required: A minimum of 12 and a maximum of 18 hours elected from the following four categories with a minimum of three hours in each category.

1. Literature (3-9 hours)
   ENG 110, 207, 208, 210, 211, 212, 219, 223, 224, 225, 226, 230, 233, 250
   FRH 321, 322
   GER 321, 322, 350
   SPN 209, 210, 321, 322
2. History (3-9 hours)
   HST 101, 102, 103, 201, 202, 237, 261, 273, 275
3. Philosophy (3-9 hours)
   P&R 101, 103, 115, 201, 202, 205, 215*, 216*, 217*, 230, 232, 235, 236, 238 240, 242
   * Basic studies credit from P&R 215, 216 and 217 may not exceed three semester hours.
4. Language (3-9 hours)
   FRH 101, 102, 201, 202, 305
   GER 101, 102, 201, 202, 305
   LAT 101, 102
   PRT 101, 102, 201, 202
   SPN 101, 102, 201, 202, 305
   COM 105
   P&R 110

D. Fine Arts (3-9 hours)
Required: A minimum of three and a maximum of nine hours elected from the following, with no more than six hours from any one discipline.
ART 101, 102, 201, 202, 204, 221, 241, 242
COM 116
CRA 110, 112
DRA 221, 225
MUS 185*, 186*, 187*, 105, 115, 116, 117, 118
* Basic studies credit from MUS 185, 186, and 187 may not exceed a total of three semester hours.

E. Natural Sciences and Mathematical Sciences (10-15 hours)
Required: A minimum of 10 and a maximum of 15 hours from the two areas of natural sciences and mathematics as described below.

1. Natural Sciences (7-12 hours)
   Required: A minimum of seven and a maximum of 12, including at least one laboratory science course and a minimum of three hours each in the life and physical sciences. Courses that satisfy the laboratory science requirement (when taken with the appropriate laboratory section) are starred below.

a. Life Science courses
   ANT 210
   BIO 105*, 205*, 206*, 235, 236, 237, 238, 240*, 241*
   PED 216*, 217
b. Physical Science courses
   CHM 101*, 102*, 103*, 105, 106*, 115*, 215*
   GGY 130*, 230
   GLY 101*, 102*, 120, 150
   PHY 101*, 102*, 105*, 201*, 202*, 260

2. Mathematical Sciences (3-8 hours)
   Required: One of the following courses:
   MAT 101, 111, 112, 115, 141, 151, 161
   Additional credit may be earned by electing from the following:
   CSC 111, 121
   MAT 102, 112, 142, 151, 152, 161, 162, 275
   P&R 218
   STT 205, 210, 215, 262

F. Social and Behavioral Sciences (3-9 hours)
Required: A minimum of three and a maximum of nine hours elected from the following, with no more than six hours from any one discipline.
ANT 105, 205 (SOC 205), 206, 207
CRJ 201
ECN 125, 221, 222
GGY 110, 140
PLS 101, 102, 111, 202, 206, 207
PSY 105, 145, 220, 223
SWK 235, 245
SOC 105, 110, 205 (ANT 205), 215, 220

strictions on Courses from Individual Disciplines

1. A maximum of nine credit hours from any academic discipline (as defined by the three-letter course code), except ENG 101 and 102, can count toward the 45 hours of Basic Studies.

2. No more than two specific Basic Studies requirements (as indicated by letter or letter-number code in the above structure), except English Composition, can be met by courses in one academic discipline (as defined by the three-letter course code).

iver of Requirements

nglish: Students who have not qualified for advanced placement but who because of cial circumstances may have writing competencies equal or superior to those required NG 101 or 102 may, at the discretion of the chairperson of the Department of English, e a waiver examination. An acceptable score will waive either or both requirements. This ver does not grant academic credit.

Mathematics: Students who have not qualified for advanced placement but who ma have competencies equal or superior to those required for successful completion of MA 151 or 161 may, at the discretion of the chairperson of the Department of Mathematic Sciences, take a waiver examination for either of these courses. An acceptable score c this exam waives the requirement that one of the introductory mathematics courses b taken. This waiver does not grant academic credit.

REQUIRED PHYSICAL EDUCATION

Through participation in the required physical education program, students should expe to develop an understanding of the role of life-long physical activity in enhancing the quali of one's life.

The university requires all students to complete with a passing grade PED 101, Found tions of Physical Activity. Transfer students who have not had an equivalent course mu also complete this requirement. Handicapped students are encouraged to participate the fullest extent possible in physical education activities and are encouraged to consu with the chairperson of the Department of Health, Physical Education, and Recreatic concerning participation in these activities.

The university requires all students to provide information regarding their current heal status on the Report of Medical History form available through the Admissions Offic Completion of this requirement is a prerequisite to:

1) enrollment in any physical education activity course,
2) participation in any physical education activity course,
3) utilization of the physical education facilities for recreational purposes. Based c the information contained in this report, the student will be assigned to one three categories listed below:
   A. Unrestricted participation
   B. Restricted participation
   C. Temporarily restricted participation because of an injury or illness

COURSE DESCRIPTIONS

All undergraduate courses offered in the College of Arts and Sciences, the Camerc School of Business Administration, the School of Education, and the School of Nursing a listed following the appropriate departmental degree requirements. Not all of the course listed are offered within a single academic year. A listing of the courses offered during given semester is printed in a Class Schedule Booklet, which is placed in each student university mailbox before preregistration each semester.

Please note: A hyphen connecting courses (e.g., 201-202) indicates that the first cours in the sequence must be satisfactorily completed prior to registration in the second cours of the sequence. When course numbers are separated by a comma (e.g, 201,202), the fir course is not necessarily prerequisite to those following.

CREDITS AND CLASS MEETINGS

Unless specifically indicated at the end of the course description, the number of hours class meets each week is the same as the credit hour value of the course. The semest hours credit for each course is indicated in parentheses immediately following the title the course. For example, if three hours of credit may be earned the credit is indicated a follows: (3). In variable credit courses, the minimum and maximum hours are shown a follows: (1-3).

OURSE PREFIXES

The prefixes used to designate courses are abbreviations of the names of departments of fields of study within departments.

OLLEGE OF ARTS AND SCIENCES

IT	Anthropology
T	Art
O	Biological Sciences
IM	Chemistry
A	Classical Languages
OM	Communication
J	Criminal Justice
C	Computer Sciences
A	Drama
N	Engineering
G	English
S	Environmental Sciences
A	Fine Arts
H	French
R	German
GY	Geography
Y	Geology
A	Health
HST	History
LAT	Latin
MAT	Mathematics
MLN	Modern Languages
MLS	Military Science
MUS	Music
P&R	Philosophy & Religion
PED	Physical Education
PHY	Physics
PLS	Political Science
PRT	Portuguese
PSY	Psychology
REC	Recreation
SOC	Sociology
SPN	Spanish
STT	Statistics
SWK	Social Work

AMERON SCHOOL OF BUSINESS ADMINISTRATION

G	Accounting
A	Business Law
N	Economics
N	Finance
GT	Management
T	Marketing
S	Production & Decision Sciences

CHOOL OF EDUCATION

N	Curricular Studies
N	Educational Design & Management

CHOOL OF NURSING

G	Nursing

TRIAL COURSES

Academic departments may offer special trial courses during the fall and spring semes ters on a one-time basis without adding them to their regular departmental offerings. A second trial offering, if additional data are essential, must be within two regular semester of the first. Numbers designating these special courses are 292 and 492. Descriptiv information on trial courses does not appear in the catalogue, but is on file in the Offic of the Registrar.

DIRECTED INDIVIDUAL STUDY

This course designated as 491 in each department involves investigation beyond what i offered in existing courses. To enroll in a Directed Individual Study, students must hav an overall grade point average of at least 2.0 and the approval of 1) the faculty membe who would direct the study, 2) the departmental chairperson, and 3) the appropriate dear Departmental criteria will include 1) the availability of the instructor (ordinarily instructor will not supervise more than six student credit hours of Directed Individual Study pe semester), 2) the appropriateness of and need for the proposed study in the student' program, 3) the availability of library and other research resources, and 4) the feasibilit of completion of the proposed study in the allotted time. Students are limited to nine cred hours of Directed Individual Study toward graduation requirements, not more than three c which can be outside the area of concentration.

GENERAL COLLEGE COURSE

GCA 101. Freshman Seminar (1). An active application of tested academic strategie to current semester's course material. Course content includes test-taking an note-taking skills, comprehensive techniques, library use, guest lectures, stud reading strategies, and verbal and written communication ability. At least one hou each week.

INTERNATIONAL STUDY COURSES

Academic departments at the university may offer special international study course during the regular semesters or summer sessions without adding them to their permaner curricula. Each course must be approved by the appropriate dean. These courses wi include regular classroom assignments, lectures and discussions, travel and field work and visits to historic and cultural sites. Study will take place outside the United States usually in association with local universities abroad. A student may take no more than tw 294 courses and/or one 494 course, for a combined maximum of 12 credit hours.

MILITARY SCIENCE CREDIT

The normal four-year military science program awards 16 credit hours for Military Scienc courses. All 16 hours count toward a student's overall grade point average. Howeve students may only count 13 of their military science credit hours toward their degre requirements.

OLLEGE OF ARTS AND SCIENCES

rolyn H. Simmons, *dean*
ry L. Faulkner, *assistant dean*
nn L. Stokes, *assistant dean*
Ann M. Seiple, *assistant dean*
arles R. Ward, *director of science and mathematics education center*

The College of Arts and Sciences offers a variety of programs in the liberal arts leading the Bachelor of Arts, Bachelor of Science, Master of Arts and Master of Science grees. To implement these programs, the college provides instruction, research, and eative opportunities in the fine arts and humanities as well as in the natural, physical, d social sciences. The sixteen academic departments in the college provide courses study in each of these areas, in addition to the interdisciplinary programs in social ence and environmental studies, a professional program in medical technology, and e-professional programs in agriculture and forestry, allied health, dentistry, engineering, , medicine, optometry, pharmacy, physical therapy, veterinary medicine.
Degree requirements for all undergraduate concentrations available in the College of Arts d Sciences are listed below by departments. Requirements for the graduate degrees e listed in the Graduate School Catalogue, while those for professional, preprofessional, d special programs are listed in those sections of this catalogue.

DEPARTMENTAL REQUIREMENTS

ANTHROPOLOGY

(See Sociology and Anthropology)

ARMY ROTC

(see Military Science)

ART

(See Fine Arts)

BIOLOGICAL SCIENCES

Dr. Sizemore, *chairperson*. Dr. Ballard, Dr. Biggs, Dr. Bird, Dr. Bolen, Dr. Cahoon, Dr. avijo, Dr. Dillaman, Dr.Dodd, Dr. Dunn, Dr. Fugler, Dr. George, Dr. Hackney, Dr Hosier, Hulbert, Dr. Kapraun, Ms. Kendrick, Dr. Lindquist, Dr. Lundeen, Dr. Merritt, Dr. Mintzes, Padgett, Dr. Parnell, Dr. Plyler, Dr. Posey, Dr. Roer, Dr. Roye, Dr. Shafer, Dr. Sieren, Dr. ebster.

Requirements for a Concentration in Biology for the B.A. degree: Basic core require-nts are BIO 110-111, 205 and 206 which must be taken within the first four semesters. addition to those requirements, there are two options described below, one of which a dent must elect in order to complete the degree requirements.

Option 1. General.

BIO 495 and minimum of 25 hours chosen from courses numbered above 299. CH 101-102 with lab or 105 -106 - 102 with lab. A minimum of 16 hours chosen from the liste courses in at least two of the following areas: CHM 211, 212, 235, CSC 105, 111, 121, GL 101, 102, 150, MAT 151, 152, 161, 162, 261, PHY 101 or 105, 102, 201, 202, 260, PS 456, 457, STT 215. With the advanced approval of the faculty advisor and the departmer chairperson, other courses may be substituted for the collateral electives listed above. "C" or better average on BIO courses above 299. This option is a flexible program whic can be designed by a student and an advisor to meet personal educational goals an interests which may or may not include graduate study. The program may be used meet a set of specific requirements, for example, certification for teaching at the seconda school level.

Option 2. Premedical Sciences.

BIO 315, 335, with lab, 345, 347, or 465, 495 and minimum of 8 hours chosen from BI 316, 371, 410, 425, 435, 440, 441, 477. Collateral requirements are CHM 101-102 with la 211-212 with lab, 235, PHY 101-102 with lab, MAT 151, 152. A "C" or better average c BIO courses above 299. This option is designed for students who wish pre-profession training in medicine, dentistry, optometry, and other health care fields. The sequence courses conforms to entrance requirements prescribed in publications of the Associatic of American Medical Colleges, the American Association of Dental Schools, and the cour cil on Optometric Education of the American Optometric Association.

Requirements for a Concentration in Biology for the B.S. degree: Basic core requir ments are BIO 110-111, 205, and 206 which must be taken within the first four semester BIO 335 with lab, 345 or 347 with lab or 355, 366, 495, and a minimum of 8 addition hours in courses numbered above 299, at least 3 hours of which must be cellular/molecul biology. For the purpose of satisfying degree requirements in biology the following a considered to be courses in cellular-molecular biology: BIO 347, 410, 425, 430, 435, 44 465. Collateral requirements are CHM 101 - 102 with lab or 105 - 106 - 102 with lab, 211 - 21 with lab, PHY 101 - 102 or 201 - 202, MAT 151 and STT 215. Students planning to atten graduate school are urged to take CHM 235, MAT 152, CSC 111, 121, 125, 126, and FR 201 - 202 or GER 201 - 202. A "C" or better average on all BIO courses above 299. Th degree program is designed for those students who plan to attend graduate school or see employment in various fields of biological specialization.

Requirements for a Concentration in Marine Biology for the B.S. degree: Basic co requirements are BIO 110-111, 205, and 206 which must be taken within the first fo semesters. BIO 335 with lab, 345 or 347 with lab or 355, 362, 366, and 495. A minimu of 10 hours selected from the following: 365 or 481, 446 or 472, 457, 458, 462, and 46 Collateral requirements are CHM 101 - 102 with lab or 105 - 106 - 102 with lab, GLY 15 PHY 101 - 102 or 201-202, MAT 111 - 112 or 115 -151 or a higher sequence, a minimu of 4 semester hours chosen from CHM 211, 212, 235, 475, CSC 111, 121, 125, GGY 33 GLY 101, 231, STT 215. A "C" or better average on BIO courses above 299.

This degree program is designed for those students who plan to attend graduate scho or seek employment in fields of biological specialization which are marine related.

Requirements for Teacher Certification in Biology: In addition to completing t requirements for a degree in biology or marine biology and the other requirements the Teacher Education Program, the following courses are required for certification: BI

315, 235 or 335 with or without lab, 345 or 347 with or without lab or 355, 366, 425, GLY 101 or 150, and PHY 101 or 105.

Biology Course Descriptions

BIO 105. Concepts of Modern Biology (4) An introduction to the diversity of life and the principles governing living systems, focusing on the role of humans in the natural world. This course employs multi-media instructional materials and is designed for the non-biology major. Three lecture hours and three laboratory/discussion hours each week.

BIO 108. Introduction to Medical Technology (1) A survey of medical laboratory technology as a career option. Explores the many disciplines encompassed by the profession including microbiology, chemistry, blood banking, and hematology as they apply to the medical diagnostic laboratory, as well as brief considerations of cytotechnology and histo-technology. The course includes a discussion of the nature and scope of necessary skills, opportunities for advancement, certification requirements, and visits to a hospital laboratory. One hour and 15 minutes each week.

BIO 110-111, 205, 206. Core courses for biology majors.

BIO 110-111. Principles of Biology (4-4) Introduction to the molecular and cellular basis of life, mechanisms responsible for diversity and stability in natural populations, and interactions of living organisms with each other and the environment. Laboratories reinforce concepts presented in lecture and introduce basic investigative skills and methods of biological inquiry. Designed primarily for biology majors. Three lecture and two laboratory hours each week.

BIO 205. Plant Biology (4) Prerequisite: BIO 110-111 or consent of instructor. Classification, morphology, physiology, and ecology of seed plants with introductory survey of algae, fungi, bryophytes and lower vascular plants. Three lecture and two laboratory hours each week.

BIO 206. Animal Biology (4) Prerequisite: BIO 110-111 or consent of instructor. Evolution, classification and diversity of animals, and structure and functions of major body systems, especially of humans. Three lecture and two laboratory hours each week.

BIO 216. (PED 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three laboratory hours each week.

BIO 217. (PED 217) Human Anatomy and Physiology II (3) The study of human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement.

BIO 235, 236, 237, 238. Elective courses primarily for nonmajor students, emphasizing "man in the natural world;" two or more to be offered each semester.

BIO 235. Genetics in Human Affairs (3) A discussion of basic principles of genetics for non-majors or majors with the ultimate goal of developing an understanding of the relationship of genetics to the society of today and its possible influence on the future of man. A survey of current knowledge of the inheritance of human traits is included.

BIO 236. Biology of the Sea (3) An introduction to marine environments, the diversity of marine life and the role of man in the utilization of marine resources. Students will become acquainted with local marine habitats, including: salt marshes, sandy beaches, tidal flats and rocky shores.

BIO 237. Plants and Civilization (3) An introduction to the plant kingdom, the diversity, structure, and function of plant life, and the impact of plants on human culture, history, civilization and economics.

BIO 238. Microbes and Human Society (3) An introduction to the world of the microorganism, focusing on the diversity, structure and function of microbial life, the spread and control of disease-producing organisms, and the impact of these life forms on human culture, history, and civilization.

BIO 240 - 241. Human Anatomy and Physiology (4-4) A comprehensive introduction to the anatomy and physiology of the human organism. Organ systems of the body are discussed individually and as parts of interacting groups, with emphasis on the processes which maintain an internal steady-state. Three lecture and three laboratory hours each week.

BIO 246. Microbiology of Human Diseases (4) Prerequisite: BIO 240. An introduction to the biology of microorganisms which affect humans. Emphasizes pathogenic and related microorganisms. The basic microbiological techniques needed to isolate, identify and control microorganisms will be covered. Three lecture and three laboratory hours each week.

BIO 315. Comparative Vertebrate Anatomy (4) Prerequisite: BIO 206. Comparative morphology and phylogenetic interrelationships of vertebrate animals; representative organisms dissected in laboratory. Three lecture and three laboratory hours each week.

BIO 316. Vertebrate Embryology (4) Prerequisite: BIO 206. Fundamental principles of embryonic development of vertebrate animals; frog, chick, and pig emphasized. Three lecture and three laboratory hours each week.

BIO 335. Genetics (3) Prerequisite: BIO 110-111. Principles of Mendelian heredity, linkage, mutation, population genetics, and gene action.

BIOL 335-51. Genetics Laboratory (1) Corequisite: BIO 335. Demonstration of basic heredity principles through study of Drosophila and other genetic systems. Three laboratory hours each week.

BIO 341. Clinical Calculations (1) Prerequisite: Junior status. Laboratory calculations specifically for Medical Technology majors, although it is open to other majors as well. Reviews basic chemical calculations and introduces the common mathematic applications in medical/biological laboratory.

BIO 345. Animal Physiology (4) Prerequisite: BIO 110-111 and CHM 102. Comparative study of physiological processes in different organisms approached through study of tissues, organs, and systems. Three lecture and three laboratory hours each week.

BIO 347. Molecular Biology of the Cell (3) Prerequisite: BIO 110-111 and CHM 211. Chemical and physical properties of cells. Emphasis on molecular biology and experimental biological systems used to elucidate cellular function.

BIOL 347-51. Molecular Biology of Cell Laboratory (1) Prerequisite or corequisite: BIO 347. Experiments demonstrating basic phenomena underlying cellular function. Three laboratory hours each week.

BIO 349. (PED 349) Physiology of Exercise and Sport (4) Prerequisite: BIO 215 or 345. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and two laboratory hours each week.

BIO 355. Plant Physiology (4) Prerequisite: BIO 110-111 and CHM 102. A study of plant function at the molecular, cellular, and organismic levels. Emphasis placed on unique aspects of vascular plants. Topics include water relations, solute transport, photosynthesis, nitrogen metabolism, plant hormones, photocontrol of development, and stress physiology. Three lecture and three laboratory hours each week.

BIO 356. Vertebrate Natural History (4) Prerequisite: BIO 206. Identification, classification, and life histories of common vertebrate animals of eastern North Carolina with emphasis on field work. Two lecture and four laboratory hours each week.

BIO 358. Marine Mammals (3) Prerequisite: BIO 206. Study of pinnipeds, cetaceans, and sirenians, emphasizing their evolution and taxonomic relationships, anatomical and physiological adaptations, ecologic and economic importance, and natural history.

BIO 362. Marine Biology (4) Prerequisite: BIO 110-111 and corequisite: BIO 205 or 206. The coastal and oceanic biota and their relationships to the marine environment. Three lecture and three laboratory hours each week.

BIO 365. Invertebrate Zoology (4) Prerequisite: BIO 206. Invertebrate organisms with emphasis on structure, function, taxonomy, phylogeny, and life histories. Three lecture and three laboratory hours each week.

BIO 366. Ecology (4) Prerequisite: BIO 205 or 206. Ecological principles pertaining to both plants and animals. Three lecture and three laboratory hours each week.

BIO 371. Human Fungal Diseases. (1) Prerequisite: BIO 110-111. An in-depth consideration of human mycotic diseases for medical technology, nursing and premedical

students. Emphasis will be placed on etiology, predisposing conditions, clinical diagnosis, immunology, serology and therapy of most presently recognized human mycoses.

BIO 375. Plant Morphology (4) Prerequisite: BIO 205. Morphological survey of algae, fungi, bryophytes, lower vascular plants, and seed plants, and seed plants with emphasis on life histories, structure, and development. Three lecture and three laboratory hours each week.

BIO 410. (512) Electron Microscopy and Cell Ultrastructure (3) Prerequisite: BIO 347. A discussion of the general and specialized techniques of transmission and scanning electron microscopy and their application to the elucidation of the structure and function of cell organelles in plants and animals.

BIOL 410-51. (512-51) Electron Microscopy Laboratory (1) Corequisite: BIO 410 and permission of instructor. Techniques for fixing, embedding, and thin sectioning of tissues will be demonstrated. Students will prepare a material of choice for observation and analysis and examine the prepared material with the electron microscope. Three laboratory hours each week.

BIO 415. (520) Vertebrate Histology (4) Prerequisite: BIO 206. An introduction to the cytology and morphology of vertebrate cells and tissues, including examination of the four major histological tissues: epithelium, connective tissue, muscle, and nerve. Other topics include the techniques and instrumentation of light microscopy and selected methods of sectioning, fixation, and staining of tissues. Student project required. Three lecture and three laboratory hours each week.

BIO 425. (524) Microbiology (4) Prerequisite: BIO 110 and 111 and junior status. Study of nonpathogenic and pathogenic microorganisms with emphasis on the biology of viruses and bacteria. Laboratory sessions include techniques required to identify, culture and stain selected microorganisms. Three lecture and three laboratory hours each week.

BIO 430. (529) (ANT 430) Evolutionary Biology (3) Prerequisite: BIO 335. Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature.

BIO 435. (535) Molecular Genetics (3) Prerequisite: CHM 102, BIO 335 and 347 or 465. An overview of current understanding of the nature, function, and control of genes. Topics include the nature of genetic information; the sequence organization and packaging of the eucaryotic genome; DNA, RNA, and protein synthesis; recombinant DNA technology; RNA processing; transposable genetic elements; and antibody diversity, synthesis, and function.

BIO 436. (536) Recombinant DNA Techniques (2) Prerequisite: One of the following: BIO 335, 347 or 465. Basic principles and techniques of gene cloning using three major types of cloning vectors; lambda phage, plasmids, and the single stranded DNA phage M13. Provides hands-on experience in recombinant DNA methology. One lecture and four laboratory hours each week.

BIO 440. (544) Developmental Biology (4) Prerequisite: BIO 335. Concepts of mechanism and control in development. Topics include cell lineage determination, differential gene activity, cell recognition phenomena, hormones, and environmental control of development. Plant and animal systems studied in modern research literature will be discussed. Three lecture and three laboratory hours each week.

BIO 441. Introduction to Immunology (1) Prerequisite: BIO 110-111. Prerequisite or corequisite: CHM 211. A general survey of modern immunological principles.

BIO 445. (545) Marine Physiology (4) Prerequisite: BIO 365. Introduction to physiological system characteristic of marine vertebrates and invertebrates. Emphasis on the mechanisms underlying osmoregulation, respiration, temperature regulation, digestion, and movement. Three lecture and three laboratory hours each week.

BIO 446. (571) Phycology (4) Prerequisite: BIO 205. An introduction survey of algal groups including benthic planktonic freshwater and marine representatives in local environments. Morphology, life histories, and ecology are emphasized. Collection and preservation techniques are demonstrated. Three lecture and three laboratory hours each week.

BIO 452. (554) Mammalogy (4) Prerequisite: BIO 206. Study of mammals, emphasizing their evolution, taxonomic relationships, structural and physiological adaption, and life histories. Laboratory sessions will include collection, identification, and preparation of specimens and observations of mammals in the field. Three lecture and three laboratory hours each week.

BIO 454 (557) Herpetology (4) Prerequisite: BIO 206. Study of tne biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Three lecture and three laboratory hours each week.

BIO 456. (556) Ornithology (4) Prerequisite: BIO 206. An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

BIO 457. (537) Ichthyology (4) Prerequisite: BIO 206. The systematics, evolution, and natural history of fishes, with field work emphasizing the ecology and behavior of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

BIOL 458. (565) Fisheries Biology (4) Prerequisite: BIO 457, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, migration and economic pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

BIO 460. (567) Limnology (4) Prerequisite: BIO 110-111 and CHM 102 and junior status. An examination of the physical, chemical, and biological characteristics of freshwater systems, particularly lakes, with an emphasis on the interrelationships of these characteristics. Three lecture and three laboratory hours each week.

BIO 462. (552) Deep Sea biology (3) Prerequisite: BIO 362. Biology of animals inhabiting the deep sea environment off North Carolina. Emphasizes faunal zonation, abyssal zoogeography, high pressure and low temperature adaptations, reproductive strategies, origin and speciation in deep sea.

BIO 465. (540) Biochemistry (3) Prerequisite: BIO 110-111 and CHM 211 and junior status. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzymes kinetics; bioenergetics and regulatory mechanisms.

BIO 466. (534) Advanced Ecology (4) Prerequisite: BIO 366. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

BIO 468. (570) Planktonology (4) Prerequisite: BIO 365 or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

BIO 470. Ecology of Human Populations (3) Prerequisite: BIO 345, 366. A study of man's adaptation to diverse world environments utilizing geological, physiological, and ecological principles.

BIO 472. (572) Marine Phycology (4) Prerequisite: BIO 205. An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction. Three lecture and three laboratory hours each week.

BIO 474. (576) Comparative Morphology of Vascular plants (4) Prerequisite: BIO 205. An in-depth study of the major groups of vascular plants with emphasis on structure, life histories, development, and phylogeny. Three lecture and three laboratory hours each week.

BIO 475. (574) Plant Taxonomy (4) Prerequisite: BIO 205. An introduction to identification, classification, and nomenclature of vascular plants with emphasis on the flora of southeastern North Carolina. Two lecture and four laboratory hours each week.

BIO 477. (573) Mycology (4) Prerequisite: BIO 110-111. Taxonomy, morphology, and ecology of fungi with emphasis on fungal evolution and the importance of fungi to humans. Fungi as casual agents of both plant and animal diseases will also be discussed. Three lecture and three laboratory hours each week.

BIO 480. (580) Field Studies in Biology (1-6) Prerequisite: BIO 205, 206, and consent of instructor (BIO 366 and credit in advanced zoology or botany recommended). A research/experience oriented field course offered in selected regional locales. Emphasis is placed on distribution, taxonomy, and ecology of animal and/or plant organisms.

BIO 481. (559) Marine Invertebrate Zoology (4) Prerequisite: BIO 205 and 206. A field oriented course that provides in-depth ecological and taxonomic treatment of selected invertebrate groups. Three lecture and three laboratory hours each week.

BIO 485. (585) Special Topics in Advanced Biology (1-6) Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

BIO 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of instructor, and consent of department chairperson.

BIO 495. Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Individual reports and group discussions of the results of student field, laboratory and/or library research on selected topics in biology. May be repeated for a maximum of three semester hours.

BIO 499. Honors Work in Biology (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honor students.

For 292 and 492; 294 and 494 see explanations, on p. 82.

CHEMISTRY

Dr. Levy, *chairperson*. Dr. Adcock, Dr. Burgess, Dr. Cahill, Dr. Hornack, Ms. R.B. Jones, Dr. S.B. Jones, Dr. Kieber, Dr. Manock, Dr. Martin, Dr. Nance, Dr. Reeves, Dr. Sayed, Dr. Seaton, Dr. Ward, Dr. Willey.

Requirements for a Concentration in Chemistry for the B.A. degree: Core courses: CHM 101-102, CHML 101-51, 102-51, CHM 211-212, CHML 211-51, 212-51, CHM 225, 235, CHML 235-51, CHM 325, CHML 325-51, CHM 355, 445, 495 or EVS 495, MAT 161-162, and PHY 201-202 or 101-102.

Also required are the courses in one of the following emphasis alternatives:

Education: Teacher Education Program requirements, and four of the following courses: BIO 110-111, 205, 206; GLY 101, 120, and 150; and PHY 260. Students completing this option qualify for teaching certification in chemistry. By including one biology course from BIO 110-111, 205, 206, and two geology courses from GLY 101, 120, and 150, students completing this option also qualify for certification in science.

Environmental Science: CHM 277, BIO 110-111, EVS 195, GLY 120, and STT 215.

Industrial Chemistry: CHM 277 and 485, 315-316 or 435 and CHML 435-51, ACG 201, and PDS 217 or STT 215. CHM 485 offered spring 1991 and alternate years.

Marine Science: CHM 475, BIO 110-111, 362 and GLY 150.

Premedical Science: CHM 417 and 465 and BIO 110-111, and 206. CHM 417 offered spring 1992 and alternate years.

A "C" or better on each chemistry course.

Requirements for a Concentration in Chemistry for the B.S. degree: CHM 101-102, CHML 101-51, 102-51, CHM 211-212, CHML 211-51, 212-51, CHM 225, 235, CHML 235-51, CHM 315-316, 321-322, CHML 321-51, 322-51, CHM 355, 435, CHML 435-51, CHM 445, CHML 445-51, CHM 495 and two of the following: CHM 415, 446, 465, 485 and 491 (3 hours). MAT 161, 162, 261, and 361 and either PHY 201-202 or PHY 101-102, 206-207.

A "C" or better on each chemistry course. Students working for the B.S. degree shoulc arrange their work so as to take CHM 321-322 in the junior year. Two years of German are recommended.

Chemistry Course Descriptions

CHM 101-102. General Chemistry (3-3) Prerequisite or corequisite: MAT 111-112 or 115 Fundamental laws, principles, and theories of chemistry and a study of selectec elements and compounds. Normally taken concurrently with CHML 101-51, 102-51

CHML 101-51, 102-51. General Chemistry Laboratory (1-1) Prerequisite or corequisite CHM 101-102. Introduction to techniques and equipment in the chemistry laboratory interpretation of experimental results. Quantitative and qualitative analysis included Three laboratory hours each week.

CHM 105-106-102. General Chemistry (2-2-3) Prerequisite or corequisite: MAT 111-112 or 115. Fundamental laws, principles, and theories of chemistry and a study c selected elements and compounds. CHM 105-106 is slower-paced equivalent c CHM 101. CHML 101-51 is normally taken concurrently with CHM 106, and CHMI 102-51 is taken with CHM 102. CHM 105-106, two hours each week. CHM 102, three hours each week.

CHM 103. Chemistry in Everyday life (4) A terminal, relatively non-mathematical one semester course in chemistry for the non science major. Topics include atomic anc molecular structure as a basis for a general understanding of chemical reactions drug activity, cancer, nuclear power, pesticides, environmental problems, energy resources, food additives, and the chemical industry. Three lecture and three labora tory/discussion hours each week. May not be taken for credit after CHM 102 has been passed.

CHM 115. Fundamentals of General and Organic Chemistry (3) Prerequisite o corequisite: MAT III. A one semester study of general and organic chemistry Topics include measurement, states of matter, energy, atomic theory, bonding reactions, gases, water, solutions, acidity, radioactivity, and an introduction tc organic chemistry. Prepares students for CHM 215.

CHML 115-51. Laboratory for Fundamentals of General and Organic Chemistry (1 Corequisite: CHM 115. Introduction to techniques and equipment in the chemistry labora tory and interpretation of experimental results. Three laboratory hours each week.

CHM 211-212. Organic Chemistry (3-3) Prerequisite: CHM 102 and CHML 102-51 Introduction to the chemistry of carbon compounds, including structural theory synthesis, and reaction mechanisms. Normally taken concurrently with CHML 211 51, 212-51.

CHML 211-51, 212-51. Organic Chemistry Laboratory (1-1) Prerequisite or corequisite CHM 211-212. Three laboratory hours each week.

CHM 215. Fundamentals of Organic and Biological Chemistry (3) Prerequisite: CHM 115 and CHML 115-51. A one-semester study of organic and biological chemistry Topics include carboxylic acids, esters, amines, amides, carbohydrates, lipids proteins, nucleic acids, nutrition, enzymes, hormones, neurotransmitters, and intermediary metabolism.

HML 215-51. Laboratory for Fundamentals of Organic and Biological Chemistry (1) Corequisite: CHM 215. Introduction to equipment and techniques of organic and biological chemistry and interpretation of experimental results. Three laboratory hours each week.

HM 225. Chemical Applications of Microcomputers (2) Prerequisite: CHM 102. A study of microcomputer applications in chemistry, including an introduction to microcomputer design, peripherals, applications software and preventive maintenance. Discussion of microcomputer communications and instrument interfacing. Programming in BASIC with chemical applications. No previous computer experience required. Intended for students who will be taking CHM 235, 321, or 325.

HM 235. Quantitative Analysis (2) Prerequisite: CHM 102, CHML 102-51. Prerequisite or corequisite: CHM 225. Theory of (a) gravimetric and volumetric analysis. (b) instrumental techniques, and (c) sampling, sample preparation, and monitoring of air, water, etc. Normally taken concurrently with Quantitative Analysis Laboratory.

HML 235-51. Quantitative Analysis Laboratory (2) Prerequisite or corequisite: CHM 235. Four laboratory hours each week.

HM 277. Environmental Chemistry (3) Prerequisite: CHM 102. Introduction to the chemistry of air, soil, and natural waters. Processes of environmental degradation, cleanup, and pollution prevention. Selected current topics.

HM 315-316. Advanced Techniques of Organic Chemistry (2-2) Prerequisite or corequisite: CHM 211-212 and CHML 211-51, 212-51. Theory and practice of chromatographic methods of separation and spectroscopic methods of identification. One lecture and three laboratory hours each week.

HM 321. Physical Chemistry (3) Prerequisite: CHM 102, 225 or equivalent, PHY 202, and MAT 261. Properties of matter, kinetic molecular theory, fundamentals of thermodynamics, phase equilibria, thermodynamics of chemical reactions, ionic equilibria, and electrochemistry.

HM 322. Physical Chemistry (3) Prerequisite: CHM 102, 225 or equivalent, PHY 202, and MAT 261. Chemical kinetics, introduction to quantum mechanics, atomic and molecular structure, and spectroscopy.

HMI 321-51, 322-51. Physical Chemistry Laboratory (1-1) Prerequisite or corequisite: CHM 321 and 322, respectively. Three laboratory hours each week.

HM 325. Brief Physical Chemistry (3) Prerequisite: CHM 102, 225 or equivalent experience, one sequence in physics and MAT 161. An abbreviated course in fundamentals of physical chemistry. Normally taken concurrently with CHML 325-51. May not be taken for credit after 321 has been passed.

HML 325-51 Brief Physical Chemistry Laboratory (1) Prerequisite or corequisite: CHM 325. Three laboratory hours each week.

CHM 355. History and Literature of Chemistry (1) Prerequisite: Junior standing. Int duction to chemical literature and sources of information and to the historical dev opment of chemistry.

CHM 415. Advanced Organic Chemistry (3) Prerequisite: CHM 212. Theoretical orga chemistry with emphasis on reaction mechanisms and special synthetic methods

CHM 417. (517) Medicinal Chemistry (3) Prerequisite: CHM 212. Systematic study of t chemistry, as well as the biological activity of hormones, vitamins, drugs affecti the nervous system, and other miscellaneous agents. Prior CHM 415 or CHM 46 recommended. Spring 1992 and alternate years.

CHM 435. (535) Advanced Analytical Chemistry (2) Prerequisite: CHM 235, 321, or 3 and their laboratories. Theory of modern analytical instrumentation and techniqu Normally taken concurrently with CHML 435-51.

CHML 435-51. (535-51) Advanced Analytical Chemistry Laboratory (2) Prerequisite corequisite: CHM 435. Four laboratory hours each week.

CHM 445 Inorganic Chemistry (3) Prerequisite: CHM 321 or 325. Study of perio relationships: crystal lattice theory; transition metals and ions; crystal field thec organometallic structures and reactions; and reaction mechanisms.

CHML 445-51. Inorganic Synthesis (1) Prerequisite or corequisite: CHM 445. Synthe and techniques in inorganic chemistry. Normally taken concurrently with CHM 4 Three laboratory hours each week.

CHM 446. (546) Advanced Inorganic Chemistry (3) Prerequisite: CHM 445. Topics inorganic chemistry, including ligand field theory; chemical applications of gro theory; hybridization of orbitals and molecular orbital theory, molecular vibrati spectroscopy, and principles of quantum mechanics. This course will emphas these topics in the framework of the molecular symmetry.

CHM 465. (565) Biochemistry (3) Prerequisite: CHM 212 and either 321 or 325. Stu of the physical structures of carbohydrates, lipids, amino acids, proteins, nucl acids, vitamins and minerals and the chemical principles governing their biologi activity. Special emphasis will be given to enzyme kinetics, solution properties macromolecules, and the thermodynamic principles of intermediary metabolism.

CHML 465-51. (565-51) Biochemical Techniques and Instrumentation Lab (1) Prerec site or corequisite: CHM 465. Theory and practice of advanced biochemical techniqu including buffer and reagent preparation, protein assay, protein purification, electrophore enzyme kinetics, tryptic peptide digestion, membrane vesicle construction, DNA isolati and radioisotope detection. Three laboratory hours each week.

CHM 475. (575) Chemical Oceanography (3) Prerequisite: CHM 102. Sources, dis bution, forms of occurrence, and reactions of chemical species in seawater. T course will emphasize estuarine reactions, dynamic equilibria, air-seawater a sediment-seawater reactions, and human impact on the oceans. Prior GLY 150 recommended. Spring 1992 and alternate years.

HM 476. (576) Chemical Analysis of Natural Waters (2) Prerequisite: One of the following: CHM 235, 277, or 475. Standard chemical methods will be used to analyze natural water samples, including fresh water samples and seawater. Methods will be evaluated with respect to appropriate applications. Analyses to be studied include salinity, chloride, dissolved oxygen and oxygen demand, pH and alkalinity, nutrients, chlorophyll, suspended material, and dissolved metals. One lecture and three laboratory hours each week.

IM 485. (585) Industrial and Polymer Chemistry (3) Prerequisite: CHM 212 and either 321 or 325. Properties, synthesis, and reactions of major industrial chemicals; synthetic plastics, polyesters, polyamides, and rubbers; soaps and detergents; petrochemicals; paints and pigments; dyes; explosives; pulp and paper; pharmaceutical and nuclear industries; mechanism of polymerization, copolymerization; physical and chemical properties of polymers; polymer characterization; advances in polymer technology. Spring 1991 and alternate years.

IM 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

IM 495. Senior Seminar (1-3) Prerequisite: CHM 355 and 25 semester hours of chemistry courses. Discussion of selected topics. One hour each week.

IM 499. Honors work in Chemistry (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honors students.

292 and 492; 294 and 494, see explanation on p. 82.

CRIMINAL JUSTICE

(See Sociology and Anthropology)

DRAMA

(See Fine Arts)

EARTH SCIENCES

Dr. Harris, *acting chairperson.* Dr. Ainsley, Dr. Cleary, Dr, Conner, Mr. Davies, Dr. Dockal, Hall, Dr. Huntsman, Dr. Kiefer, Dr. Laws, Dr. Randall, Dr. Spyrou, Dr. Thayer, Dr. Zullo.

The Department of Earth Sciences offers concentrations in geography and geology which pare the student for advance studies or for teaching, research and technical careers ilable to one who holds the baccalaureate degree.

Requirements for a Concentration in Geography for the B.A. degree: Corerequirents: GGY 110, 130, 140, 220, 270, 320, 325, 429, 495. Collateral requirements are CSC and STT 205 or 215. In addition there are two options, described below, one of which tudent must elect in order to compete the degree requirements. A "C" (2.0) or better erage on all courses taken within the department, and a "C" (2.0) or better average on required courses above the 100 level in the department.

Option 1.

This option provides a broad, flexible program to meet personal educational goals an interests including careers and graduate study in geography.

(a) Physical Geography: seven hours selected from GGY 230, 332, 333, or 335.

(b) Economic and Urban Geography: six hours selected from GGY 312, 315 and 317

(c) Applied Geography and Planning: six hours selected from GGY 322, 372, 375 and 378.

(d) Cultural Geography: nine hours, including three hours in regional geography, selecte from GGY 240, 255, 282, 350, 352, 382, and 385.

Option 2.

This option is designed specifically for students interested in pursuing careers and/c graduate study in planning and applied geography.

(a) GGY 312, 317, 333, and 335.

(b) GGY 496 or 498 and six hours selected from GGY 372, 375, 378.

(c) 6 hours selected from GGY 322, 350, 382, ECN 125, PLS 207, 308, and SO 315, 385.

Geography Course Descriptions

(Department of Earth Sciences)

GGY 110. Economic Geography (3) Human economic activities, their location and rela tionships to physical and economic conditions of the environment.

GGY 130. Introduction to Physical Geography (4) Spatial distribution of environmenta elements and processes, including weather and climate, groundwater, soils, rocks plate tectonics, landforms, and vegetation. Three lecture and two laboratory hour each week.

GGY 140. Introduction to Human Geography (3) Survey of the geography of huma settlement patterns and activity throughout the world. Emphasis on relationship between physical environments and different facets of human culture, includin population, resources, regional development, urban growth, and political, linguistic and religious patterns.

GGY 220. Map reading and Interpretation (3) Introduction to the fundamentals of usin and understanding maps. Examination of location, scale, map projections, elevatio and relief. Recognition of map symbols, shapes and patterns in the natural an cultural landscapes as represented on topographic maps. Interpretation of themati maps and an understanding of computer aided mapping and geographic informa tion systems. Two lecture and two laboratory hours each week.

GGY 230. Introduction to Weather and Climate (3) Examination of general climat characteristics through space and time, especially as influenced by controls upo temperature, wind and moisture distributions, and by planetary, regional and loc atmospheric disturbances.

GGY 240. Population Geography (3) Prerequisite: GGY 140 or consent of instructor. study of the spatial dimensions of population growth, density and movement and

the shifts in these patterns as they relate to changes in selected socio-economic and cultural phenomena.

GGY 255. **Historical Geography of the Middle East (3)** Geographical, archaeological, historical and geological investigation of the physical environment and cultural landscapes that provided the settings for the evolution of the population, economics and cultures of Southwestern Asia.

GGY 270. **Principles of Land Use Planning (3)** Prerequisite: GGY 130 and 140 or consent of instructor. Introduction to planning techniques and to planning as a profession. Classification and analysis of spatial variations in land use patterns and development processes as they relate to the physical environment and human activities.

GGY 282. **Geography of North Carolina (3)** Prerequisite: GGY 140 or consent of instructor. A survey of the physical and cultural landscapes of North Carolina with the emphasis on an understanding of the complex geographical variety that exists within a dynamic and growing southern state.

GGY 312. **Geography of Transportation (3)** Prerequisite: GGY 110 or consent of instructor. Study of the structural elements of transportation systems and the spatial processes associated with their development.

GGY 315. **Industrial Geography (3)** Prerequisite: GGY 110 or credit in economics or consent of instructor. Factors underlying the distribution, development and character of manufacturing activities and industrial regions. Emphasis is placed upon location theory.

GGY 317. **Urban Geography (3)** Prerequisite: Credit in a social science or in history or consent of instructor. Analysis of the spatial distribution, growth, function and structure of urban places with emphasis on urban developments and problems in the United States.

GGY 320. **Elementary Cartography (3)** Prerequisite: GGY 220. Techniques of drafting, map projection,and map designs; methods of data representations on maps. One lecture and four laboratory hours each week.

GGY 322. **Aerial Photography and Remote Sensing (3)** Prerequisite: GGY 130, 220 or GLY 101. Introduction to the use of aerial photography and other remote sensing techniques to analyze topography, geology, vegetation and culture. Two lecture and three laboratory hours each week.

GGY 325. **Quantitative Methods in Earth Sciences (3)** Prerequisite: STT 205 or 215. Use and interpretation of statistical techniques in geographic and geologic research. The course emphasizes problem identification, data collection and interpretation through assignments covering specific kinds of statistical methods.

GGY 332. **Soils and Vegetation Geography (3)** Prerequisite: GGY 130. Global distribution of soils; soil-forming processes; principles underlying the distribution of plants in their terrestrial environments; methodology of vegetation sampling; introduction to principle field techniques and evaluation; description of modern global veg-

etation biomes and their development by physiographic pedogenic, climatic, and evolutionary events of the past.

GGY 333. Applied Climatology (4) Prerequisite: GGY 130 or 230 or consent of instructor. The spatial distribution and character of climates, their relation to other elements of the environment and to human activities. Three lecture and two laboratory hours each week.

GGY 335. Introduction to Geomorphology (4) Prerequisite: GGY 130 or GLY 101 or consent of instructor. Description and classification of land forms; analysis of the geologic, climatic and biologic factors involved in their formation; survey of geomorphic provinces of the United States. Three lecture and two laboratory hours each week.

GGY 350. Political Geography (3) Prerequisite: Credit in a social science or in history or consent of instructor. Geographic factors in the development of nations and in contemporary national and international affairs.

GGY 352. Historical Geography of the United States (3) Prerequisite: HST 201 or GGY 140 or consent of instructor. A study of the evolution of the cultural landscapes and the spatial patterns of the area that is now the United States. Examination of past geographies and of geographical change through time.

GGY 372. Urban and Community Land Use Planning (3) Prerequisite: GGY 270. Application of principles and concepts of physical planning in urbanized areas and analysis of community development programs. Explores the spatial structure of cities, neighborhood planning, housing issues, revitalization programs and urban design principles.

GGY 375. Rural Land Use Planning (3) Prerequisite: GGY 270. Concepts of planning applied to the protection of open space in the face of increasing development demands and pressures. Topics include farmland retention, landscape assessment, land trusts, preservation and scenic easements, zoning techniques and land use plans.

GGY 378. (HST 378) Historic Preservation Planning (3) Prerequisite: GGY 270, or 352 or consent of instructor. An applied research course which deals with the procedures employed be federal, state and local agencies in locating, recording, restoring and preserving American architectural resources and material cultural heritage. Subjects examined include survey, documentation, and planning; historic districts; adaptive use; funding; legislation; and organizational roles.

GGY 382. Regional Geography of the United States (3) Prerequisite: GGY 140 or HST 202 or consent of instructor. A regional analysis of physical characteristics, resource base and human geography of the United States.

GGY 385. Regional Geography of Europe (3) Prerequisite: GGY 140 or HST 102 or consent of instructor. A regional analysis of the physical and cultural features of Europe.

GGY 429. History and Philosophy of Geography (3) Prerequisite: Senior standing in geography. Development of geographic thought and comparative evaluation of current philosophies concerning the nature of geography.

GGY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

GGY 495. Senior Seminar (1-3) Prerequisite: Senior standing in geography. May be repeated one time for credit. One to three hours each week.

GGY 496. Senior Thesis (2-2) Prerequisite: Senior standing in geography. A supervised senior thesis on a topic selected by the student, thesis advisor, and thesis committee. A written thesis, completed during a two semester period, and an oral defense are required.

GGY 498. Internship (3) Prerequisite: Senior standing in geography, recommendation of advisor and consent of the geography faculty. The student works a minimum of twelve hours per week for an outside agency or individual in a position that enables the student to utilize academic training in a practical field experience. A summary paper and an oral presentation before the geography faculty are required.

GGY 499. Honors Work in Geography (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairperson. Individual study for honors students.

For 292 and 492; 294 and 494, see explanation on p. 82.

Requirements for a Concentration in Geology for the B.A. degree: GLY 101, 102, 190, 201, 210, 231, 331, 341, GGY 335 and GLY 495. Collateral requirements are CHM (lecture and laboratory) 101 or (105, 106)-102. MAT 111-112 or 115, and a minimum of 7 hours selected from biology, chemistry, computer science, geology, geography, mathematics or physics. A "C" (2.0) or better average on all courses taken within the department and a "C" (2.0) or better average on all required courses above the 100 level in the department. Geology majors working toward certification for secondary school teaching must also complete Teacher Education Program requirements.

Requirements for a Concentration in Geology for the B.S. degree: GLY 101, 102, 190, 201, 202, 231, 311, 312, 331, 341, and 495. Collateral requirements are CHM (lecture and laboratory) 101-102, MAT 161-162, PHY 101-102 or 201-202, and a summer field course in geology offered by another institution. A "C" or (2.0) or better average on all courses taken within the department and "C" (2.0) or better average on all required courses above the 100 level in the department. Students planning to attend graduate school are urged to take CSC 111, and FRH 101-102 or GER 101-102.

Geology Course Descriptions

(Department of Earth Sciences)

GLY 101. Physical Geology (4) Study of the earth and the moon; constitution of the earth's crust; weathering, erosional and depositional processes; mountain building

forces and the earth's internal composition. Field trips. Three lecture and three laboratory hours each week.

GLY 102. Historical Geology (4) Prerequisite: GLY 101. Geologic history of the earth; methods of interpreting the past; ancient environments; development and evolution of life. Required field trips. Three lecture and three laboratory hours each week.

GLY 120. (EVS 120) Environmental Geology (3) Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities.

GLY 131. Dinosaurs (2) Study of the Dinosaurs and other Mesozoic vertebrates as illustrations of the basic principles of vertebrate paleontology. Emphasis is placed on identification, systematics, evolution, ecology and extinction of the Dinosaurs.

GLY 150. Introduction to Oceanography (3) An introduction to the geology, physics, chemistry and biology of the ocean; instruments and techniques of oceanography; resources of the ocean. Required field trips.

GLY 190. Methods in Geology (3) Prerequisite: GLY 101; Corequisite: GLY 102. Introduction to various bibliographic, graphic, field, and laboratory methods essential to geologic studies. Weekly projects and required field trips.

GLY 201. Mineralogy (4) Prerequisite: GLY 101: Corequisite: CHM 101, including laboratory. Principles of chemical bonding in natural solids; crystal chemistry; physical conditions of mineral genesis; geologically significant mineral associations; crystallography; mineral identification. Required field trips. Three lecture and three laboratory hours each week. Fall.

GLY 202. Advanced Mineralogy (3) Prerequisite: GLY 201. The technique of mineral identification and analysis. Theory and application of the polarizing microscope and X-ray diffractomoter. Introduction to the principles of the electron microprobe, X-ray fluorescence and atomic absorption. One lecture and four laboratory hours each week.

GLY 210. General Petrology (4) Prerequisite: GLY 201 or consent of instructor. A survey of the major igneous, sedimentary, and metamorphic rock groups. Emphasis is on classification, textural features, mode of occurrence, environments of origin and economic importance. Laboratory stresses rock identification and typical rock associations. Required field trips. Three lecture and three laboratory hours each week.

GLY 231. Invertebrate Paleontology (4) Prerequisite: GLY 102 or consent of instructor. History of fossil protistans and invertebrates with emphasis on the principles of paleontology, systematics and evolution, and on the use of fossils in stratigraphic correlation. Required field trips. Three lecture and three laboratory hours each week.

GLY 311. Igneous and Metamorphic Petrology (4) Prerequisite: GLY 202. Theories of genesis of the major igneous and metamorphic rocks in the light of chemistry,

mineralogy, structure and texture, field associations, and experimental data. The relationship between igneous and metamorphic processes and crust-mantle tectonic activity. Required field trips. Three lecture and three laboratory hours each week.

LY 312. Sedimentary Petrology (4) Prerequisite: GLY 202. Introduction to the identification, classification and origins of sediments and sedimentary rocks. Emphasis is placed on physical processes controlling sedimentation and study of modern and ancient depositional environments. Field trips. Three lecture and three laboratory hours each week.

LY 331. Stratigraphy (4) Prerequisite: GLY 231. An introduction to the description, organization and classification of layered rocks. Emphasis is placed on the practical use of stratigraphic principles in elucidating earth history. Field trips. Three lecture and three laboratory hours each week.

LY 341. Structural Geology (4) Prerequisite: GLY 201 and MAT 112 or 115. Introduction to the mechanics, fabrics, and geometry of rock deformation, including stress-strain relationships, folds and folding, and faulting and fracturing of rocks. Selected regional examples introduce and test concepts and theories of orogenic rock mechanisms and tectonics. Required field trip. Three lecture and three laboratory hours each week.

LY 391. Appalachian Geology (1) Corequisite: GLY 331 or 341. Field study of the structure, stratigraphy, rocks, and paleontology of the Paleozoic System of the Appalachian geosyncline. Introduction to sample collection, field mapping procedures, and methods of data analysis. Three field days and colloquium. Spring. (Fees)

LY 392. Coastal Plain Geology (1) Corequisite: GLY 331. Field analysis of depositional patterns and paleontology of Cretaceous and Cenozoic units of the southeastern Atlantic Coastal Plain. Introduction to methods of litho-and biostratigraphic correlation, sampling techniques, and sample analysis. Three field days and colloquium. Fall (Fees)

LY 393. Coastal Processes (1) Prerequisite: GLY 101. Field examination of the depositional and erosional processes and materials in the marshes, estuaries and barrier islands of the Carolinas and Georgia. Introduction to basic techniques used by coastal researchers in field measurements, sample retrieval and data analysis. Three field days and colloquium. Spring. (Fees)

LY 394. Piedmont Geology (1) Prerequisite: GLY 102. Corequisite: GLY 201 or 341, or consent of instructor. Field examination of the petrology, degree(s) of metamorphism, and structural style(s) of the various belts of rock in the crystalline Appalachians. Observations permit regional tectonic syntheses for the Piedmont. Three days and colloquium. Fall (Fees)

LY 480. Advanced Topics in Geology (1-3) Prerequisite: Junior standing in department and consent of instructor. Study of selected topics in geology that are not considered in detail in regular course offerings. Examples of specific topics are plate tectonics, seismology, depositional systems, groundwater hydrology, geochronology, and

advanced paleontology. Taught on demand. More than one topic may be taken fo credit (maximum 6 hours.)

GLY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing anc consent of department chairperson.

GLY 495. Senior Seminar (1-3) Prerequisite: Senior standing with a concentration i geology or consent of instructor. May be repeated one time for credit.

GLY 499. Honors Work in Geology (2-3) Prerequisite: Eligibility for honors program anc recommendation of department chairperson. Individual study for honors students.

For 292 and 492; 294 and 494, see explanation on p. 82.

ENGINEERING

(See Pre-Professional Programs for Requirements)

Engineering Course Descriptions

(Department of Earth Sciences)

EGN 111. Engineering Graphics (3) Fundamentals of drafting and use of instrument lettering, geometric constructions, orthographic projection, auxiliaries, sections, fas teners, dimensioning, freehand sketching; axonometric, oblique, and perspectiv views and fundamentals of working drawings. Basic construction and topographi drafting, inking, methods of reproduction; descriptive geometry, graphical solution c spatial point, line and plane problems. One lecture and three laboratory hours eac week.

EGN 211. Land Surveying (3) Prerequisite: MAT 111 or consent of instructor. Th elements of plane surveying; basic instrument nomenclature, use and adjustmer methods of surveying plots of land using the metes and bounds system; and intrc duction to the public land surveys; methods of basic surveying computation invol ing horizontal, vertical and angular measurements; legal aspects of surveying (leg term definitions, recording processes, federal, state and local laws and codes basic methods of subdivision. Two hours of lecture and three hours of laborato each week.

EGN 212. Route Surveying (3) Prerequisite: EGN 211 or consent of instructor. Th elements of plane route surveying to include the operations involved in horizontal and vertically aligning roadways (highways and railroads) and the computatior involved in the various operations; horizontal and vertical curves; procedures pec liar to road, canals, transmission lines, pipelines, storm and sanitary sewers, urba utility surveys, along with the incidental storm drainage design and layout for certa roadway situations. Two hours of lecture and three hours of laboratory each week.

EGN 221. Geodetic Surveying (3) Prerequisite: EGN 211. The application of many the principles of geodesy for the purpose of transitioning from surveys on a plar to surveys on an oblate spheroid (Earth). The use of spherical trigonometry ar some of the calculus in geodetic surveys; the N.C. State Plane Coordinate Syster

ome experience in electronic distance measuring; methods of computation and field nethods of triangulation, trilateration and traverse; astronomical observations and compuations involved to determine latitude, longitude and azimuth (direction) from one point to nother. Two hours of lecture and three hours of laboratory each week.

EGN 222. Topographic Surveying and Mapping (3) Prerequisite: EGN 211. The field and office processes necessary to prepare topographic and hydrographic maps of a specified area. The many methods of data acquisition over land and water areas are examined and practiced during the course to include: radial line surveys, x.y.z. coordinate surveys, aerial surveys and the plane table. The actual preparation of a "live" map from field survey to finished inked map is a primary part of the course. Two hours of lecture and three hours of laboratory each week.

EGN 321. Engineering Statics (3) Prerequisite: PHY 201 and corequisite: MAT 162. The study of engineering statics using vector calculus. Basic concepts, forces and equilibrium analysis, distributed forces, centroids, moments of inertia, virtual work, applications to machines, structures, and systems.

ENGLISH

Dr. Stokes, *acting chairperson.* Dr. Byington, Dr. Clifford, Dr. Collier, Dr. Corbett, Ms. eWane-Lander, Dr. Dodson, Dr. Ellis, Mr. Evans, Mr. Fort, Mr. Gerard, Dr. C. Gould, Ms. . Gould, Ms. Huntley-Johnston, Ms. Jones, Mr. Lander, Ms. McDonald, Dr. MacLennan, r. Noland, Dr. Parish, Mrs. Pearsall, Dr. Rosselot, Dr. Rugoff, Dr. Schweninger, Dr. D. eiple, Dr. J. Seiple, Dr. Sullivan, Dr. Temple-Thurston, Dr. Veit, Dr. Walker, Dr. Waxman, r. Wentworth, Mr. Zinkus.

The Department of English offers a basic preparation in literature, language, and comosition, and then special concentrations in literature and language, professional and reative writing, and teacher preparation. A "C" or better grade must be achieved in ach English course taken to satisfy requirements of the major.

Core requirements for a Concentration in English for the B.A. degree: ENG 211-212, 23-224, 306, 320 or 323 and an additional writing course.

Requirements for a Concentration in English for the B.A. degree with an emphasis literature and language: The core requirements plus an additional 21 hours, consisting a senior seminar, ENG 332 or 333, and three elective hours in ENG (no more than 6 of ese 21 hours may be at the 200 level).

Requirements for a Concentration in English for the B.A. degree with an emphasis professional and creative writing: The core requirements plus an additional 21 hours, onsisting of 12 hours in writing courses, 6 hours in literature courses (including one senior eminar), and 3 hours in a language or additional writing course (no more than 6 of these 1 hours may be at the 200 level).

Requirements for a Concentration in English for the B.A. degree with teacher certification: Teacher Education Program requirements, the core requirements plus ENG 225 or 226, 304, 321, 380 or 381, 382, 495 (senior seminar), and 3 elective hours (300 level or above). In the core, the additional writing course must be ENG 320. Students will be urged to choose COM 105 or 116 as part of the Basic Studies requirements.

Collaterals: For each concentration, 18 hours in another discipline or disciplines selected by student and advisor to provide optimum reinforcement for the student's academic objectives.

English Course Descriptions

ENG 100. Foundations of Composition (0) Intensive writing practice and instruction for students needing preparation in the basics of composition. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

ENG 101. Composition (3) Prerequisite: Evidence of competence on the English Placement Test or a grade of a "C" in ENG 100. An introduction to college-level composition. Extensive practice in the techniques of invention, development, organization, editing, and revision, with emphasis on narrative and expository forms appropriate to academic writing.

ENG 102. Composition (3) Prerequisite: ENG 101. College-level composition. Continued practice in the composing process, with emphasis on argumentation and research. Frequent projects in gathering, analyzing, and documenting information from outside sources.

ENG 110. Introduction to Literature (3) Study of three literary genres-poetry, drama, and short fiction-in terms of basic components and structures.

ENG 200. Foundations of Creative Writing (3) Prerequisite: ENG 102 or consent of instructor. Instruction in creative writing as a preparation for teaching on the primary or secondary levels. Includes writing exercises in three genres: poetry, fiction, and drama. Intended primarily for prospective teachers.

ENG 201. Intermediate College Writing (3) Prerequisite: ENG 102. Instruction in composing strategies to strengthen organizational, syntactical, and editing skills. Written projects relate to the academic interests of each student.

ENG 202. Introduction to Journalism (3) Prerequisite: ENG 102. Introduction to newswriting and newspaper organization. Includes writing news stories, editorials, features, interviews, and profiles.

ENG 203. Writing about Literature (3) Prerequisite or corequisite: ENG 102. Practice in ways to write about literature in forms ranging from personal journals to in-class responses to critical essays. Includes reading and instruction in literature.

ENG 207. Creative Writing (Fiction) (3) Prerequisite: ENG 102 or consent of instructor. Instruction in writing fiction, including critical evaluation by instructor and class.

students' original works. Students also critique and relate to their own work the fiction of relevant professional authors.

NG 208. **Creative Writing (Poetry) (3)** Prerequisite: ENG 102 or consent of instructor. Instruction in writing poetry, including critical evaluation by instructor and class of students' original works. Students also critique and relate to their own work the poetry of relevant professional poets.

NG 210. **Mythology (3)** Prerequisite: ENG 102. The major mythological systems of Western society-Greek, Roman, and Norse. Mythology of other parts of the world and related material are also considered.

NG 211, 212. **Great British Writers I & II (3,3)** Prerequisite or corequisite: ENG 102. 211: Writings before 1800; 212: Writings since 1800.

NG 219. **General Fiction (3)** Prerequisite: ENG 102. A thematic approach to fiction for students who enjoy extensive readings of current novels.

NG 220. **Introduction to the English Language (3)** Prerequisite: ENG 102. A non-technical introduction to the structure, history, and contemporary use of the English language. Provides a thorough background in English grammar.

NG 223, 224. **American Literature I & II (3,3)** Prerequisite or corequisite: ENG 102. 223: The literature of colonial and early America (1607-1820) and of the Romantic era (1820-1855). 224: The literature of American Realism (1855-1900) and the twentieth century (1900-1960).

NG 225, 226. **World Literature I & II (3,3)** Prerequisite or corequisite: ENG 102. Representative works of world literature (excluding British and American authors) emphasizing, but not limited to, the Western literary tradition. 225: Work from ancient times to about 1500; 226: 1500 to the twentieth century.

NG 230. **Women in Literature (3)** Prerequisite or corequisite: ENG 102. Twentieth century literature by and about women. Focus on changes in images and roles of women. Includes fiction, poetry, and essays.

NG 232. **Black American Writers (3)** Prerequisite or corequisite: ENG 102. Study of representative literature written by Black American writers from slavery to the present, including writers such as Wheatly, Douglass, Hughes, Wright, Ellison, and Alice Walker.

G 233. **The Bible as Literature (3)** Prerequisite or corequisite: ENG 102. Study of types of Biblical literature, including narratives from the Old and New Testaments, sermons, parables, and poetry. Attention is given to the Bible as literature in itself and as a source of symbols and allusions from Western culture.

G 235. **Literature and Film (3)** Prerequisite or corequisite: ENG 102. Study of selected literary works that have been transformed into films. Consideration is given to each work in its original literary form as well as to the changes it has undergone in cinematic adaptation. Works treated may vary from semester to semester.

ENG 240. The Supernatural in Literature (3) Prerequisite or corequisite: ENG 102 Types of supernatural phenomena in literature, including psychic experiences, the occult, ghosts, werewolves, and vampires. Emphasis on British and American fictior of the nineteenth and twentieth centuries, from Mary Shelley to Stephen King.

ENG 241. Detective Fiction (3) Prerequisite or corequisite: ENG 102. Major writers o detective fiction from Poe to the present. Development of the mystery form and the evolution of the detective as hero in British and American literature.

ENG 242. Science Fiction (3) Prerequisite or corequisite: ENG 102. Study of specia conventions that distinguish science fiction from other types of literature (such as fantasy). Considers the contribution of science fiction to the understanding of such current concerns as overpopulation, biological change, automation, and the threat o nuclear war. Works by such authors as Wells, Asimov, Heinlein, Clarke, Bester, and LeGuin.

ENG 243. Fantasy Literature (3) Prerequisite or corequisite: ENG 102. Study o nonrational phenomena in literature and of the relationship of fantasy to reality Considers phenomena such as magic and other-worldly creatures in settings tha distinguish fantasy from other types of literature, such as science fiction.

ENG 244. Literature of the Sea (3) Prerequisite or corequisite: ENG 102. Study o nautical literature, focusing on varying perceptions of the sea; major themes i nautical literature; uses of the sea as setting, symbol, and metaphor.

ENG 250. Introduction to Folklore (3) Prerequisite or corequisite: ENG 102. A definitio and survey of the most common forms of folklore, including folk speech, narratives music, art, customs, and beliefs, with an emphasis upon the relevance of thes materials to the study of literature, history, education, art, the social sciences, an other disciplines.

ENG 290. Themes in Literature (3) Prerequisite or corequisite: ENG 102. A interdisciplinary study of a significant theme, such as war and peace, justic love, youth and age, focusing primarily on literary works but also drawing o sources from other fields, including art, music, and history. May be repeated onc under a different subtitle.

ENG 300. Introduction to Technical Writing (3) Prerequisite: ENG 102. Types of writin encountered in professions: resumes, memos, correspondence, proposals, pro ress reports, technical reports, and oral presentations of technical reports; emphas on style, form, and organization; adaptable to the student's major field of study.

ENG 301. Technical Report Writing (3) Prerequisite: ENG 300 or consent of instru tor. Theory and practice of technical writing. Emphasis on mid-sized and long reports, including proposals and feasibility studies, journal articles, profession papers, research studies, and oral presentation of technical reports; adaptable the student's major field of study.

ENG 302. Journalism Workshop (3) Prerequisite: ENG 202 or consent of instruct Study of advanced forms of newswriting, such as Wall Street Journal style, ne

magazine format, and "New Journalism." Techniques applied to writing and editing the weekly campus newspaper, *The Seahawk*.

G 304. Writing for Teachers (3) Prerequisite: ENG 102. Instruction in writing for teachers of all school subjects (K12). Forms of exposition and persuasion appropriate to teachers; consideration given to learning and composition theory, the composing process, theories of rhetoric, evaluation, writing development.

G 306. Essay Writing (3) Prerequisite: ENG 102. Instruction in all major essay modes: narration, description, exposition, critical analysis, and persuasion. Emphasis on mastering prewriting, writing, and revision strategies; attention to developing individual style. Appropriate for students in all majors.

G 307. Advanced Creative Writing: Fiction (3) Prerequisite: ENG 207 or consent of instructor. Instruction in advanced techniques of writing fiction. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication.

G 308. Advanced Creative Writing: Poetry (3) Prerequisite: ENG 208 or consent of instructor. Instruction in advanced techniques of writing poetry. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication.

G 310. Theory and Practice of Editing (3) Prerequisite: ENG 102. An advanced writing course, focusing on revising, editing, and copy editing. Techniques and strategies for getting prose ready for publication will be explored. Extensive practice in editing professional and student samples.

G 311. Professional Magazine Writing (3). Prerequisite: ENG 102. Writing of nonfiction prose intended for publication in magazines, newspapers, and journals.

G 315. Special Topics in Writing (3) Prerequisite: ENG 102. A focused study of a particular subject in composition/rhetoric. Topics may vary from semester to semester, but may include classical or medieval rhetoric; the study of style; the writing of grants; the rhetoric of visualization, art, music, or photography; the analysis of propaganda and advertisements; or theories of writing.

G 320. Introduction to Linguistics (3) Prerequisite: ENG 102. Important topics in the study of language, including phonological, syntactic, and semantic systems; language change; language acquisition by children; theories of language origin; and animal "language."

G 321. Structure of the English Language (3) Prerequisite: ENG 102. Study of the grammatical structure of the English language and the process by which we create and comprehend English sentences. Emphasis on recent syntactic models.

G 322. Semantics (3) Prerequisite: ENG 102. The study of language as it affects our thinking and behavior; language and prejudice; the language of advertising, propaganda, science, and poetry; slanting, euphemisms, jargon, connotations, and abstraction.

ENG 323. History of the English Language (3) Prerequisite: ENG 102. The developmen of the English language from Old English to the present; changes in sounds, vocabu lary, syntax, meaning, and spelling; formation of American dialects.

ENG 332. Shakespeare I (3) Prerequisite: ENG 102. Study of eight to ten plays anc selected sonnets (written before 1600). Included are tragedies, comedies, anc histories.

ENG 333. Shakespeare II (3) Prerequisite: ENG 102. A study of eight to ten plays writte after 1600. Included are tragedies, comedies, and histories.

ENG 335. Restoration and Eighteenth-Century Literature (3) Prerequisite: ENG 102 Major writers and types of literature between 1600 and 1800. Includes works b Dryden, Swift, and Pope, as well as examples of the periodical essay, early nove and drama.

ENG 336. British Romanticism (3) Prerequisite: ENG 102. Selected poetry and prose the Romantic period, 1783-1837. Emphasis on developments in poetry, in the ro of the artist, and Romantic critical theory. Includes such writers as Blake, Byro Wordsworth, Coleridge, Keats, Shelley, Austen, and Scott.

ENG 337. Victorian Literature (3) Prerequisite: ENG 102. English literature from 183 to 1901. Cultural upheavals as reflected in poetry and prose by such authors Tennyson, Browning, Arnold, Pater and the Pre-Raphaelites, Dickens, Eliot, ar Thackeray.

ENG 338. British Literature 1900-1950 (3) Prerequisite: ENG 102. Study of a broa range of writings from the first half of the twentieth century. Includes works by Briti authors such as Conrad, Lawrence, Joyce, Woolf, Yeats, Shaw, and Auden.

ENG 350. American Romanticism (3) Prerequisite: ENG 102. Major writers in the Ame can Renaissance, from 1820 to the Civil War, including Whitman, Emerson, Thorea Poe, Hawthorne, and Melville.

ENG 351. American Realism (3) Prerequisite: ENG 102. Major writers in the period emerging industrialism and urbanization after the Civil War, including Dickins Twain, James, Crane, and Dreiser.

ENG 352. American Literature 1900-1950 (3) Prerequisite: ENG 102. Study of a bro range of writings from the first half of the twentieth century. Includes works American authors such as Eliot, Pound, Stevens, O'Neill, Hemingway, Fitzgera Porter, and Faulkner.

ENG 353. Southern American Literature (3) Prerequisite: ENG 102. Study of nineteen and twentieth-century Southern literature, ranging from southwestern humor sketch written before the Civil War to recent literature by such authors as Welty, O'Conn Faulkner, Ellison, Percy, and Williams.

ENG 354. North Carolina Writers (3) Prerequisite: ENG 102. Short stories, novels, poetry by North Carolina writers. Several works reflect upon the life and time of

state. Includes such writers as Charles Chesnutt, O. Henry, Thomas Wolfe, Randall Jarrell, and Gail Godwin.

ENG 355. **Ethnic Literature of the United States (3)** Prerequisite: ENG 102. Literature of various American ethnic groups, with emphasis on Afro-American, Jewish American, Native American, Hispanic American, and Asian American literature.

ENG 361. **Studies in the Short Story (3)** Prerequisite: ENG 102. Types of the short story, with emphasis upon the features and development of the genre. Works from a variety of periods, authors, and traditions.

ENG 362. **Studies in the Novel (3)** Prerequisite: ENG 102. Types of the novel, with emphasis upon the features and development of the genre. Works from a variety of periods, authors, and traditions.

ENG 364. **Studies in Poetry (3)** Prerequisite: ENG 102. Major types of poetry, with emphasis on their form, style, and interpretation. Poems from a variety of periods, authors, and traditions.

ENG 365. **Studies in Drama (3)** Prerequisite: ENG 102. A variety of plays representing tragedy, comedy, and modern forms. Works from a variety of periods, authors, and traditions with some attention to dramatic criticisms.

ENG 371. **European Literature 1900-1950 (3)** Prerequisite: ENG 102. Study of a broad range of writings from the first half of the twentieth century. Includes Continental authors such as Kafka, Hesse, Camus, Rilke, Brecht, Akhamatova, and Pasternak.

ENG 372. **Contemporary Literature (3)** Prerequisite: ENG 102. Literature since 1950. Includes such movements and themes as confessional and beat poetry, theater of the absurd, alienation, pop culture, and experimentation.

ENG 373. **The Female Tradition in Literature (3)** Prerequisite: ENG 102. Study of literary works by nineteenth-century women. Examines evolving women's literary criticism and distinctly female uses of language in literature.

ENG 374, 375. **Twentieth-Century American & British Poetry I, II (3,3)** Prerequisite: ENG 102. 374: Pre-WWII poets including Hopkins, Yeats, Pound, Eliot, Frost, and Stevens. Trends in modern poetry are considered. 375: Post-WWII poets including Roethke, Lowell, Giovanni, Plath, Hughes, and Hill. Trends in post-modern poetry are considered.

ENG 380. **Literature for Children (3)** Prerequisite: ENG 102. Exploration of children's books in several genres. Intended for present and future parents and teachers of grades 4-9.

ENG 381. **Literature for Young Adults (3)** Prerequisite: ENG 102. An exploration of various genres appropriate for high school students. Intended for present and future parents and teachers of adolescents.

ENG 382. Varieties of Literary Response (3) Prerequisite: ENG 102. A range of written and oral responses to poetry, fiction, and drama. Student participation in such approaches as role-playing, collaborative problem-solving, dramatization, visualization, and parody.

ENG 430. (504) The Age of Chaucer (3) Prerequisite: ENG 211 and junior or senior standing. A survey of works written in medieval England. Included are *The Canterbury Tales,* selections from Chaucer's other works, and representative works in such genres as chronicle, biography, epic, romance, dream vision, and drama.

ENG 431. (505) The Age of Elizabeth (3) Prerequisite: ENG 211 and junior or senior standing. English literature in the sixteenth and early seventeenth centuries. Works studied include poetry by Spenser and Shakespeare, plays by Marlowe and Jonson, and prose by More and Sidney.

ENG 432. (506) The Age of Milton (3) Prerequisite: ENG 211 and junior or senior standing. Emphasis on the works of Milton. Also includes works by Donne, Herbert, and Bacon.

ENG 462. (507) Studies in the Novella (3) Prerequisite: Junior or senior standing and three hours of literature at the 300-400 level. Types of novella or short novel, with emphasis upon its distinctive features and development as a genre. Works from a variety of periods, authors, and traditions.

ENG 463. (508) Studies in Non-Fiction (3) Prerequisite: Junior or senior standing and three hours of literature at the 300-400 level. Types of non-fiction prose, including biography, autobiography, memoirs, journals, and various forms of essay. Works from a variety of periods, authors, and traditions.

ENG 490. (509) Special Topics in Literature (3) Prerequisite: Junior or senior standing and three hours of literature at the 300-400 level. The study of a selected theme, movement, period, influence, or genre. Content varies from semester to semester. May be repeated once under a different subtitle.

ENG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

ENG 495. Seminar (1-3) Prerequisite: Junior or senior standing or consent of department chairperson. Intensive study of a topic in literature, language, or writing. Emphasis upon individualized work, which may include reports, a longer research project, and appropriate bibliography assignments. Classes limited to fifteen. Required of English majors in the junior or senior year. May be repeated once under a different subtitle.

ENG 498. Internship in Writing (3-6) Prerequisite: ENG 300. Academic training and practical writing experience through work in a private company or public agency in the three-county area in and around Wilmington. Faculty supervision and evaluation of all study and on-site activity. Open to students of junior or senior standing in all majors who have been approved by the faculty internship advisor.

NG 499. Honors Work in English (2-3) Prerequisite: Eligibility for honors program. Independent study for honors student.

or 292 and 492, see explanation on p. 82.

ENVIRONMENTAL STUDIES

(Interdepartmental)

Dr. Sizemore, *coordinator.* Participating disciplines: Anthropology, Biology, Chemistry, arth Sciences, Economics, Mathematics, Physics, Political Science, Psychology, and ociology.

Requirements for a Concentration in Environmental Studies for the B.A. degree: ore: (1) EVS 195, 495; STT 205 or 215, and CSC 111 or 121. (2) One course from each of ur disciplines, selected from: CHM 235, 277; PHY 105; BIO 110-111; GLY 101, 120; GGY 30. (3) One course from each of three disciplines, selected from: PLS 304, 308; ANT 309; SY 370 (EVS 370); ECN 325 (EVS 325), 328.

Specialization: A disciplinary concentration requiring a minimum of 20 hours chosen om the approved list of courses in one of the following: biology, chemistry, earth sciences, economics, marine science, mathematical sciences, physics, political science, sychology, sociology.

Approved courses for each discipline are listed below. Courses taken to fulfill core quirements may not count toward the specialization. A "C" or better average on courses ken in the area of specialization is required.

BIOLOGY: BIO 205, 206, 316, 335 with lab, 345 or 347 or 355, 356, 365, 366, 375, 425, 0, 465, 466, 470, 475, 480, 491.

CHEMISTRY: CHM 211-212 with labs, 235 with lab, 277, 315-316, 321 with lab or 325 with , 435 with lab, 445, 465, 475, 476, 485, 491.

EARTH SCIENCES: (Geology emphasis) GLY 101, 102, 120, 201, 210, 331, 341, 391. eography emphasis): GGY 110, 130, 140, 270, 320, 322, 325, 335, 372, 375. (Marine ience emphasis): GLY 150, 391; GGY 230, 322, 333, 335.

ECONOMICS: ECN 320 or 321, 322, 326, 324 or 327, 426, 427, 428, 495; FIN 331.

MARINE SCIENCE: GLY 150; GGY 333; BIO 345, 362, 365 or 481, 366, 457, 458, 462, 8, 472; CHM 475.

MANAGERIAL SCIENCE: BLA 361; MGT 350, 351, 356, 358; DDS 313, 314; MKT 340.

MATHEMATICAL SCIENCES: MAT 161, 162, STT 262, and at least 14 additional hours osen from STT 362 (replaces STT 205 or 215 requirement), MAT 261, 325, 335, 361, 6, 367, 415, 425, 435, 436, 461, 462, 463, 465, 471.

PHYSICS: PHY 201-202 (corequisite MAT 161-162), 255, 260, 321, 335, 455, 491 (envi-ronmental research project); PHY 170 is recommended as an elective.

POLITICAL SCIENCE: PLS 111, 210, 211, 304, 307, 308, 309, 405, 406.

PSYCHOLOGY: PSY 336, 355, 365, 370, 410, 412, 456, 457, 465.

SOCIOLOGY: ANT 205, 206, 207, 302, 304, 305, 309, 322; SOC 230, 305, 315,316, 385.

Environmental Studies Course Descriptions

(Interdepartmental)

EVS 120. (GLY 120) Environmental Geology (3) Introduction to the relationships between humans and the geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities.

EVS 195. Introduction to Environmental Studies (3) Interdisciplinary introduction to the scope and application of environmental studies. Emphasis will be placed on an integrated analysis of environmental principles and discussions centering on curren environmental problems.

EVS 316. (SOC 316) Human Ecology (3) Prerequisite: SOC 105 and three additiona hours in sociology above the introductory level. A theory of community structure based on social evolution as shown through the referential concepts of population organization, environment and technology. An analysis of the spatial, temporal, func tional and related configuration of human communities.

EVS 325. (ECN 325) Environmental Economics (3) Prerequisite: ECN 125 or 221 and consent of instructor. Application of economic concepts to environmental problems common property resources, public goods, and technological externalities as deter minants of market failure; institutional alternative involving economic incentives.

EVS 370. (PSY 370) Environmental Psychology (3) Prerequisite: PSY 105. The stud of the effects of the physical environment on the behavior effects of noxious factor in the environment, the psychology of environmental design, and the formation an change of attitudes about the environment.

EVS 485. Special Topics in Advanced Environmental Science (1-6) Prerequisite: Jun ior or senior standing and EVS 195 or consent of instructor. Selected topics environmental science not covered in detail in regular course offerings. May b repeated for a maximum of six semester hours.

EVS 490. Senior Project (1-6) Prerequisite: Senior standing and permission of instructo A research project and seminar under the supervision of a committee of environme tal studies faculty. The project should involve the investigation of a current proble in the Environmental Studies field, and the preparation of a written report on th findings.

S 491. **Directed Individual Study (1-3)** Prerequisite: Junior or senior standing and consent of the environmental studies coordinator.

S 495. **Seminar in Environmental Studies (3)** Prerequisite: Senior standing. Synthetic approach to the study of environmental science. Development of the "holistic" view of the environment, its interrelationship with science, technology, and society in a seminar format. Involves a work experience with an agency or organization in the area of environmental science.

S 499. **Honors Work in Environmental Studies (2-3)** Prerequisite: Senior standing. Independent study for honors students.

292 and 492; 294 and 494, explanation on p. 82.

COMPUTER SCIENCE

(See Mathematical Sciences)

FINE ARTS

Mr. Sporre, *chairperson*

he Department of Fine Arts is comprised of divisions of Art, Drama and Music. The partment offers concentrations leading to the B.A. degree in Art, Drama and Music.

A 110 **Introduction to the Arts (3)** An inter-and multidisciplinary introduction to the arts, aesthetic perception and response, and the relationship of the arts to individuals and society - past and present. Treats visual art, music, theatre, dance, film and architecture.

A 112. **Introduction to Dance (3)** Appreciation of dance as an art form. The study of dance as a reflection and expression of various cultures from pre-history to present. Includes exposure to contemporary concert dance through films and televised or live performance. Introductory experience in selected dance techniques. Two class hours and two laboratory hours each week.

A 136. **(PED 136) Movement Exploration (3)** Study through creative dance techniques of the body's potential as a tool for creative expression. Exploration of the relationship of dance to other art forms. Solo and group work using basic art concepts and the individual's own experience as materials for movement improvisation and composition. No dance training necessary.

ART

Ms. Conner, Mr. Furst, Mr. LeQuire, Dr. Myers.

Requirements for a Concentration in Art for the B.A. degree: ART 101 102; either or 112; either ART 211 or 212; six hours chosen from ART 201, 202, 204; three urs of three or four hundred level art history; three hours chosen from MUS 261

or 262; three hours chosen from DRA 321, 322, 323; six hours chosen from practical ar theoretical courses in drama or music (histories not included): twenty-seven hours chose from three studio areas. Electives chosen in consultation with the advisor. A "C" or bett grade in all courses taken to meet the art degree requirements.

Art Course Descriptions

(Department of Fine Arts)

ART 101, 102. Design (3,3) 101: Study of the principles of two-dimensional design ar introduction to color theory. 102: Study of the concepts of three-dimensional desig and of the nature of problem solving. One lecture and six studio hours each week.

ART 111, 112. Drawing Fundamentals (3,3) Fundamentals of drawing using variou media: charcoal, pencil, ink, etc. Four studio hours each week.

ART 201. Ancient World Through Medieval Period (3) A survey of art from ancie through medieval with an emphasis on major artistic developments in their historic and cultural context from 20,000 B.C. to 1400 A.D.

ART 202. Renaissance Through Contemporary Art (3) A survey of art from th Renaissance to the present with an emphasis on major artistic developments their historical and cultural context from 100 A.D.

ART 204. Survey of American Art (3) A survey of American art from Colonial times to th present, with an emphasis on major examples of architecture, painting, sculptur graphics and the decorative arts.

ART 211. Beginning Life Drawing (3) Prerequisite: ART 111 or 112 with permission instructor. Drawing from the model: structure, geometric form, and compositic using various media: pencil, charcoal, india ink, etc. Six hours per week.

ART 212. Beginning Life Drawing (3) Prerequisite: ART 111 or 112 with permissic of instructor. Drawing from the model: structure, anatomy and composition usir various media: pencil, charcoal, india ink, etc. Six studio hours per week.

ART 221, 222. Beginning Ceramics (3,3) Introduction to three-dimensional form ar design in the manipulation of clays and glazes; basic techniques and approache One lecture and six studio hours each week.

ART 231, 232. Beginning Printmaking (3,3) Prerequisite: ART 101 or 111 or 112 permission of instructor. Problems in relief and intaglio using a variety of materia May be taken in any sequence. Six studio hours each week.

ART 241, 242. Beginning Painting (3,3) A beginning course investigating a variety media, techniques, and subjects. Six studio hours each week.

ART 251, 252. Beginning Sculpture (3,3) Prerequisite: ART 102 or consent of instructo Three-dimensional form in clay and plaster; basics of modeling and casting abstra and life forms. One lecture and six studio hours each week.

T 306. Italian Renaissance Art (3) Prerequisite: ART 201, 202 or permission of instructor. A study of the development of art in Italy, 1200-1600 A.D., with an emphasis on painting, sculpture, architecture and graphics as related to Renaissance culture.

T 307. History of Printmaking (3) Survey of printed pictures from the 15th Century to the present. An appreciation of the evolution of printmaking from its practical applications to fine art, including major artists as printmakers. Studio as experience optional.

T 308. 20th Century Art (3) Prerequisite: ART 201, 202, 204, or permission of instructor. A study of movements and issues in art from 1900 to the present in Europe and the United States with an emphasis on developments as they contribute to contemporary art. Painting, sculpture, architecture, graphics and other vehicles of artistic expression will be discussed as the relate to these developments.

T 311. Intermediate Life Drawing (3) Prerequisite: ART 211, 212 or permission of instructor. Drawing from the model: structure, composition, development of personal expression. Six studio hours per week.

T 312. Intermediate Life Drawing (3) Prerequisite: ART 211, 212, or permission of instructor. Drawing from the model: structure, anatomy, development of personal expression. Six studio hours per week.

T 321, 322. Intermediate Ceramics (3,3) Prerequisite: ART 221,222, or consent of instructor. Continuation of three-dimensional forms and design in manipulation of clay and glazes; basics of kiln construction and chemistry of glazes. One lecture and six studio hours each week.

T 331, 332. Intermediate Printmaking (3,3) Prerequisite: ART 231, 232 or permission of instructor. Further exploration of painting techniques in relief, intaglio, silkscreen. May be taken in any sequence. Six studio hours each week.

T 341, 342. Intermediate Painting (3,3) Prerequisite: ART 101, 242 or consent of instructor. Further exploration of printing techniques and expression. Six studio hours each week.

T 351, 352. Intermediate Sculpture (3,3) Prerequisite: ART 251, 252, or consent of instructor. Three-dimensional form in plaster, ceramics and metals. One lecture and six studio hours each week.

T 387. (ANT 387) Museum Studies (3) Prerequisite: Permission of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition and education.

TL 387-51. (ANTL 387-51) Museum Studies Practicum (1) Corequisite: ART 387 (ANT 387). Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ART 411. Advanced Life Drawing (3) Prerequisite: ART 311, 312 or permission c instructor. Drawing from the model: drawing as a finished product, exploration c drawing techniques. Six studio hours per week.

ART 412. Advanced Drawing (3) Prerequisite: ART 411 or permission of instructo Drawing as finished product, exploration of drawing techniques. Six studio hour per week.

ART 421, 422. Advanced Ceramics (3,3) Prerequisite: ART 321, 322, or consent c instructor. Further experience in three-dimensional form and design and emphasi on kiln construction and theory; physical and chemical properties of clays an glazes including the empirical method of glaze calculation. One lecture and si studio hours each week.

ART 431, 432. Advanced printmaking (3,3) Prerequisite: ART 331 and 332 or permis sion of instructor. Further exploration of printmaking techniques in relief, intaglic silkscreen and collograph. May be taken in any sequence. Six hours each week.

ART 441, 442. Advanced Painting (3,3) Prerequisite: ART 342 or consent of instructo Emphasis on techniques and expression. Six studio hours each week.

ART 451, 452. Advanced Sculpture (3,3) Prerequisite: ART 351, 352, or consent c instructor. Continuation of study of form with emphasis on casting and welding c metals. One lecture and six studio hours each week.

ART 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing an consent of department chairperson.

ART 495. Seminar In Art (1-3). Prerequisite: Junior standing. Consideration of speci subjects not covered in detail in regular course offerings. More than one topic ma be taken for credit.

For 292 and 492; 294 and 494 see explanation on p. 82.

DRAMA

Ms. Bratton, Mr. Macie, Dr. Rogers, Mr. Sporre, Mr. Swink, Dr. Theodore.

Requirements for Concentration in Drama for the B.A. degree: DRA 201, 205, 130 231, 307; six credits from DRA 321 or 322 or 323; three credits from ART 101 or 102 or 20 or 202, or 204; three credits from MUS 105 or 115; nine credits of electives in fine ar outside of drama. An option comprising one of the following also must be fulfilled. Option (Acting): DRA 206, 232 (4 credits), 333 (4 credits), 355, and COM 230. Option 2 (Directing DRA 232 (4 credits), 306,355, 455, 461, or 462. Option 3 (Design/Technical): DRA 202, 20 305, 306, 405, 406. Option 4 (History and Theory): DRA 321 or 322 or 323; 345, 355, 46 462. A "C" or better grade in all courses taken to meet the drama degree requirements.

Drama Course Descriptions

(Department of Fine Arts)

RA 130. **Improvisation (3)** Exploration of spontaneous dramatic playing through intensive exercises and theatre games meant to generate greater individual freedom and self-discipline, as well as to employ improvisation techniques in acting to develop characterization, stage movement, and ensemble performance.

RA 135. **(PED 102) Dance Techniques (1)** Basic dance technique on a beginner level, including ballet, jazz, and modern dance.

RA 201. **Technical Production I (3)** Basic principles of scenic material and equipment. Use of material, methods of construction, and handling of scenery and properties. One lecture and six laboratory hours per week. Participation in University Theatre productions required.

RA 202. **Technical Production II (3)** Prerequisite: DRA 201 or consent of instructor. Practical training in shop organization and technical production, plus basic principles of theatrical graphics. Two lecture and four laboratory hours each week. Participation in University Theatre productions required.

RA 205. **Stage Make-up (2)** Theory and practice in the application of make-up for theatrical performances. Four laboratory hours each week.

RA 206. **Costume History and Construction (3)** An examination of major historical costume styles. The student also will learn basic costume construction techniques, applying those techniques to individual projects as well as to the costumes for departmental productions. Two lecture hours and three laboratory hours per week.

RA 221. **Introduction to the Theatre (3)** Appreciation of theatre through an understanding of its artistic elements, history, dramatic literature, and audience involvement.

RA 225. **History and Appreciation of Film (3)** A survey through film of the development of motion picture from its primitive beginnings to the advent of sound film. A visual illustration of the basic aesthetic principles controlling film as art.

RA 231. **Acting I (4)** Prerequisite: Permission of instructor. Use of body and voice as instruments of expression; development of acting exercise structure with mind and breathing control practiced. Three class hours and two and one-half laboratory hours each week.

RA 232. **Acting II (4)** Prerequisite: Acting I or permission of instructor. Continuing and expanding work on the use of body and voice. Further development of acting exercise structure with emphasis on improvisation and one scene study. Three class hours and two and one-half laboratory hours each week.

RA 235. **Dance Technique II (1)** Prerequisite: DRA 135 or equivalent and consent of instructor. Basic dance technique on an intermediate level.

DRA 305. Scenic Design (3) Prerequisite: DRA 202 or consent of instructor. Play inter pretation through the scenic elements. Problems in theatre graphics, technique application, script interpretation, scenic design and style. Two class hours and tw laboratory hours each week.

DRA 306. Stage Lighting (3) Prerequisite: DRA 202 or consent of instructor. Basic tech niques of theatrical lighting. Includes fundamentals of electricity, lighting equipment the use of color, and the basic principles of design. Two lecture and two laborator hours each week. Participation in University Theatre productions required.

DRA 307. Theatre Management (3) Course focuses on various aspects of managemen publicity, business management, public relations, and house management.

DRA 321, 322, 323. Theatre History (3,3,3) 321: Pre-Greek beginnings to seventeent century. 322: Seventeenth century to nineteenth century. 323: Late nineteenth centur to the present day.

DRA 333. Acting III (1-4) Prerequisite: Acting I and II or consent of instructor. Scen study. A contractual course with individual student commitment concerning th number of scene studies to be attempted. Can be taken for up to four hour accumulative maximum.

DRA 345. Playwriting I (3) Analysis of one-act plays and their construction; the writing o an original one-act play required. DRA 355. Directing I (3) Fundamental principles o directing with emphasis on one-act productions.

DRA 405. Scenic Design II (3) Prerequisite: DRA 305 or consent of instructor. A advanced approach to historical styles and special design problems, including th relationship of architecture to the mise en scene.

DRA 406. Costume Design (3) Application of the principles of theatrical design to stag costuming.

DRA 425. Aesthetics of Film (3) A study of the various forms and content of film a controlled by the film director. The theoretical aspects of film as a work of art. Tw class hours and two laboratory hours each week.

DRA 445. Playwriting II (3) Prerequisite: DRA 345 or permission of instructor. Advance techniques of playwriting with emphasis on full length play; the writing of an origin full length play.

DRA 455. Directing II (3) Prerequisite: DRA 355. Advanced techniques in the direction c plays for the stage.

DRA 461, 462. Seminar in Dramatic Theory (3,3) Prerequisite: Senior standing or con sent of instructor. Growth and results of dramatic theory on theatre. 461: Aristotle t Romantic Period. 462: Ibsen to the present.

DRA 485. Senior Project (3) Every major may choose an area in drama for a seni project. The proposal for planning and executing a public presentation in the chose

area must be submitted to the faculty of the Department of Fine Arts for approval prior to the semester during which the project will be attempted.

RA 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

RA 495. Theatre Seminars (1-3)

RA 499. Honors Work in Drama (2-3) Prerequisite: Senior standing. Independent study for honors students.

or 292 and 492; 294 and 494 see explanation on p. 82.

MUSIC

Mr. Bongiorno, Dr. Deas, Dr. Errante, Dr. Hickman, Dr. Martin, Mr. McLamb, Mr. athanson, Dr. Rozier, Mr. Scott, Ms. White.

Requirements for a Concentration in Music for the B.A. degree: Students may mphasize either General Music or Performance. Core courses, common to either empha- s: MUS 101, 102, 201, 202, 261, 262.

General Music: In addition to the core requirements the general music student will be quired to complete three hours of art history (ART 201 or 202) plus three hours of troduction to theatre (DRA 221); 10 hours of applied music in the principle area, at ast two hours at the 300 level; four hours of applied music in a second area; six hours major ensemble (keyboard students may substitute up to two hours of 082 and/or 131): ne hours of music electives; and recital (at least twenty minutes) or thesis.

Performance: In addition to the core requirements, the student who emphasizes perfor- ance must complete an additional five hours of music theory (MUS 361, 362, 363); 22 ours of applied music in the principle area (at least 12 hours at the 300 level). Students ursuing the composition emphasis noted below will substitute 16 hours of composition nd six hours of applied music in a secondary area (at least two hours at the 300 level) r the 22 hour applied music requirement; eight hours of major ensemble (three of these ours can be counted toward basic studies requirements); two recitals (the junior recital is ormally a half recital); three hours from ART 201, 202, or DRA 221, (also to be counted ward basic studies requirements); and 21 hours of music electives chosen according to e following emphasis:

) Vocal Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 271, 272, 273, 274, 379, and eight hours of free electives.

2) Keyboard Performance: Six hours of secondary applied music (not to include class piano); MUS 285, 275, or 276; 375 or 376; and six hours of free music electives.

3) Keyboard Performance with Pedagogy: Three hours of secondary applied music (not to include class piano), MUS 285, 275, 276,375, 376, two semesters of 475, and three hours of free music electives. Also, the major ensemble requirement stated above is reduced to six hours (three to be counted toward basic studies requirements) of which only two hours can be substituted by 082 or 131.

(4) Instrumental Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 371, and 12 hours of free music electives.

A "C" or better grade must be achieved in all courses taken to meet the music degree requirements. All music majors must pass the piano proficiency exam and the listening exams. All non-keyboard students who do not pass the piano proficiency examination upon entering the music program are required to enroll in the appropriate section of class piano every semester until the exam is successfully completed. All keyboard majors are required to take the piano proficiency every semester until it is passed.

Music students pursuing the vocal and instrumental performance options are required to take two hours of piano beyond the proficiency exam. The student must satisfactorily meet performance seminar and recital attendance requirements.

Admission to the music program requires an audition, interview, and theory placement test.

Music Course Descriptions

(Department of Fine Arts)

MUS 082. Accompanying (1) Prerequisite: Consent of instructor. Accumulative credit limited to eight semester hours. Students will be assigned an instrumentalist or vocalist with whom to work. One hourly class meeting per week, plus accompanying for lesson of soloist and adequate rehearsal time with soloist per week to prepare for the lesson of the soloist.

MUS 083. UNCW Chamber Singers (1) Select group drawn from the concert choir (186 by audition. Group studies the gamut of works from chamber works to secular and popular music. Two hourly rehearsals per week. Accumulative credit limited to eight semester hours.

MUS 084. Jazz Ensemble (1) Prerequisite: Consent of instructor. The study and performance of jazz techniques and interpretation of popular styles in large and/or small ensemble. Open to any student who has had instrumental experience. Participation is determined by audition at the beginning of each semester. One two-hour rehearsal per week. Accumulative credit limited to eight semester hours.

MUS 101. Theory I (3) Prerequisite: Placement test. Corequisite: MUSL 101-51. An indepth study of the basic material of music, including the physic of sound, time classification, notation of pitch and rhythm, intervals, scales and modes, key signatures and triads.

MUSL 101-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: MUS 101. Includes melodic, harmonic and rhythmic dictation, singing and performing of the keyboard materials introduced in MUS 101-01. Two hours per week.

MUS 102. Theory I (3) Prerequisite: MUS 101. Corequisite: MUSL 102-51. A study of tonality, triads in inversions, phrase structure and cadences, harmonic progression, the technique of harmonization and non-harmonic tones.

USL 102-51. **Aural Skills, Keyboard and Sight-Singing (0)** Corequisite: MUS 102. Application through dictation, sight-singing and keyboard exercises using the materials introduced in MUS 102-01. Two hours per week.

US 105. **Rudiments of Music (3)** A general survey of the basic materials of music, including the study of musical rudiments, listening experiences, sight-singing, keyboard, and other related activities. The course is designed for elementary education students, public school teacher recertification, music students who wish to prepare for MUS 101, and for students who wish to increase their knowledge of music.

US 115. **Survey of Music Literature (3)** Designed to increase the student's knowledge and appreciation of music; technical knowledge of music not required.

US 116. **History of Jazz (3)** A survey of the evolution of this American art form from its African roots and European influences to the present. Technical knowledge of music not required.

US 117. **American Music (3)** A survey of American composers, musicians, and music making (classical, folk and religious) from the earliest days of European settlement to the present. Technical knowledge of music helpful, but not required.

US 118. **Survey of Electronic Music (3)** A non-technical survey of electronic music, analytical study of compositions from recordings, and basic compositional methods utilizing the facilities of the UNCW Electronic Music Studio. Technical knowledge of music not required.

US 131. **Chamber Music Workshop (1)** Open for any student who has had previous training and experience and who has the consent of the chairperson of the department. Small instrumental and vocal ensembles. Type of group will depend upon availability of personnel and faculty instructor. Two hours per week. Accumulative credit.

US 133. **Opera Workshop (2)** Prerequisite: MUS 195-03 or consent of instructor. The musical preparation and staging of operatic scenes through dramatic interpretation, body movement, and improvisation. Three hours each week. May be repeated by music majors for a maximum of eight semester hours.

US 134. **Choral Workshop (3)** Survey of choral literature of all periods, including contemporary and popular, through performance, score study, and analytical listening.

US 141-142. **Class Piano I (1-1)** Prerequisite: Consent of instructor. Recommended for all students enrolled in MUS 101-102 and music majors who have not passed the piano proficiency examination. Laboratory hours as required.

US 143-144. **Class Guitar (1-1)** Prerequisite: Consent of instructor. Class instruction in classical guitar. Prior experience is not required. Two laboratory hours each week.

MUS 146. Class Voice (1) Prerequisite: Consent of instructor. Singing techniques learne through vocal exercises and study of song literature. Two hours each week. Acc mulative credit.

MUS 185. Wind Ensemble (1) Prerequisite: Auditions by director. Study and performan of music from the band repertoire, including a broad variety of styles, compose and nationalities. Meets a minimum of two hours per week. May be repeated inde nitely. Accumulative credit limited to eight semester hours.

MUS 186. Concert Choir (1) Prerequisite: Auditions by director. Group studies a performs choral music of various historical periods and styles. May be repeat indefinitely. Accumulative credit limited to eight semester hours. Three studio hou each week.

MUS 187. Orchestra (1) Auditions by director. Study and performance of the orchest literature performed with the Wilmington Symphony Orchestra which meets for minimum of two hours per week and gives an average of four performances p year. Accumulative credit limited to eight semester hours.

MUS 195. Lower Level Applied Music, Private Lessons (1) Prerequisite: Consent instructor. One half hour lesson per week. Requires a minimum of five practice hou per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viola	Trombone
Cello	Baritone Horn
String Bass	Tuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 196. Lower Level Applied Music, Private Lessons (2) Prerequisite: Consent instructor. One hour lesson per week. Requires a minimum of 10 practice hours p week. Accumulative credit (Instruments as indicated in MUS 195.)

MUS 197. Lower Level Applied Music, Private Lessons (3) Prerequisite: Consent instructor. One hour lesson per week. Requires a minimum of 15 practice hours p week. Accumulative credit. (Instruments as indicated in MUS 195.)

MUS 201. Theory II (3) Prerequisite: MUS 102. Corequisite: MUSL 201-51. A study the musical process as observed in the literature of the common practice perio Based upon both structural and functional analysis as well as problem solvi and controlled composition exercises. Includes secondary dominants, chroma approach chords and the concept of modulation.

MUSL 201-51. Aural Skills and Sight-Singing (0) Prerequisite: MUS 102. Corequisi MUS 201. Includes melodic and rhythm dictation, singing and memorizing vario

modes, scales and broken chord patterns in root position, harmonic dictation with emphasis on modulation. Two hours per week.

US 202. Music Theory II (3) Prerequisite: MUS 201. Corequisite: MUSL 202-51. A study of the musical process as observed in the late common practice and early twentieth century periods. The development further of the concept of modulation and chromatic harmonies and introduction to such practices as quartal and polytonal harmonies.

USL 202-51. Aural Skills and Sight-Singing (0) Prerequisite:MUS 201. Corequisite: MUS 202. Continuation of MUSL 201-51 with an emphasis on inversions and chromatically derive patterns. Utilization of quartal and polytonal harmonies. Two hours per week.

US 203. Composition (1 or 3) Prerequisite: Consent of instructor. A beginning study of compositional techniques though direct application in original compositions. One hour seminar each week plus private instruction, Accumulative credit.

US 218. Electronic Music Composition (2) Prerequisite: MUS 118. A study of basic recording and synthesizer techniques utilizing the facilities of the UNCW Electronic Music Studio.

US 235. Jazz Improvisation (2) Prerequisite: MUS 101-102 or consent of instructor. Development of materials and practice for improvisational skills in the jazz idiom. Open to any student with instrumental experience. Presentation in both lecture and performance format.

US 236. Jazz Improvisation II (2) Prerequisite: MUS 235 or consent of instructor. Materials and practices for further development of improvisational skills in the jazz idiom. Presentation in both lecture and performance format.

US 241-242. Class Piano II (1-1) Prerequisite: MUS 142 or consent of instructor based on placement. Recommended for all music majors who have not passed the piano proficiency examination. Two laboratory hours each week.

US 243-244. Class Strings (1-1) Prerequisite: Consent of instructor. Class instruction in violin, viola, cello, or string bass. Two laboratory hours each week.

US 245. Woodwind Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

US 247. Brass Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

US 249. Percussion Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

US 255. Church Music Literature (3) Prerequisite: Knowledge of music fundamentals. A survey of music literature of the Western church including a study of the historical function of various musical idioms and styles.

MUS 257. Service Playing (2) Prerequisite: Permission of instructor. Practical study o service playing: organ improvisations, modulations, and related problems.

MUS 261, 262. Introduction to Music History I & II (3,3) A two semester overviev of music history and literature stressing the stylistic developments of music anc related social and historical events. 261: Music history and literature of the Middl Ages, Renaissance, and Baroque. 262: Music history and literature of the Classic Romantic, and Contemporary periods.

MUS 271. Italian Diction for Singers (1) Prerequisite: Music major and/or consent o instructor. Basic principles of Italian diction for singers with use of the internationa phonetic alphabet. Students will be coached individually and will perform in class Two hours instruction per week.

MUS 272. English Diction for Singers (1) Prerequisite: Music major and/or consent o instructor. Basic principles of English diction for singers with use of the internationa phonetic alphabet. Students will be coached individually and will perform in class Two hours per week instruction.

MUS 273. German Diction for Singers (1) Prerequisite: Music major and/or consent o instructor. Basic principles of German diction for singers with use of the internationa phonetic alphabet. Students will be coached individually and will perform in class Two hours instruction per week.

MUS 274. French Diction for Singers (1) Prerequisite: Music major and/consent o instructor. Basic principles of French diction for singers with use of the internationa phonetic alphabet. Students will be coached individually and will perform in class Two hours instruction per week.

MUS 275, 276. Keyboard Literature I & II (3,3) Prerequisite: One year private keyboarc instruction at the college level. A survey of keyboard literature in relation to con temporary pedagogical use. Historical evolution of instrument design included. 275 Beginning and intermediate keyboard literature of the 18th, 19th and 20th centuries 276: Advanced literature of the 18th, 19th and 20th centuries.

MUS 285. Basic Conducting (3) Prerequisite: MUS 102, 142. An examination of conduct ing techniques, score reading techniques and an understanding of terminology.

MUS 301. Form/Analysis (3) Prerequisite: MUS 202. A study of forms common in West ern music from 1600 to the present and the development of skills in analysis.

MUS 302. Modal Counterpoint (2) Prerequisite: MUS 301. A study of strict contrapunta practice as observed in the church music of Palestrina, Lassus and other 16th century composers. Includes writing in 2, 3 and 4 "free" voices with and withou text as well as 2 & 3 part canons. Techniques of melodic and contrapuntal inversior are also covered.

MUS 303. Tonal Counterpoint (2) Prerequisite: MUS 301. A study of contrapuntal prac tice as observed in the music of J.S. Bach and other 17th and 18th century compo sers. Includes analysis and composition of both invention and Fugue. Also include 56 contrapuntal melodic inversions.

US 306. Orchestration (2) Prerequisite: MUS 243-244, 245, 247, and 249, or consent of instructor. Techniques of transcribing, arranging, and scoring music for various instruments and instrumental combinations. Designed for students concentrating in music.

US 307. Twentieth Century Idioms (2) Prerequisite: MUS 301. An indepth study of musical practice from 1900 to the present based upon both structural and functional analysis as well as problem solving and controlled compositional exercises. Includes quartal harmonies, mixed meters, texture and timbre as musical parameters, indeterminacy and serialism.

US 308. Jazz Arranging (2) Prerequisite: MUS 202, 236. Arranging and scoring the jazz combo, with emphasis on contemporary styles. Presentation in both lecture and performance format.

US 325. Music Education for Elementary Teachers (3) Prerequisite: MUS 105 (recommended) or MUS 115. Approach to the teaching of music at the elementary level, including the use of piano laboratory.

US 326. Methods of Teaching Music in the Elementary Schools (K6) (2) Prerequisite: Consent of instructor; open only to currently enrolled music eduction majors. The purpose of this course is to study the scope and goals of the elementary music curriculum, the organization of musical content with regard to learning theories and developmental characteristics of the child, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on some of the innovative ideas in the field, including techniques developed by Orff and Kodaly. The course will also include an evaluation of music textbooks and materials for this level.

US 327. Methods of Teaching Music in Secondary Schools (7-12) (2) Prerequisite: Open only to currently enrolled music education majors with consent of instructor. The purpose of this course is to study the scope and goals of the secondary music curriculum, the organization of musical content with regard to learning theories and behavioral characteristics of the adolescent, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on method for teaching music in the classroom. The course will also include an evaluation of music textbooks and material for this level.

US 355. Music in Religious Institutions (3) Prerequisite: MUS 255. A study of the philosophic and administrative dimensions of music in religious institutions. Topics include historical antecedents and contemporary patterns.

US 361, 362, 363. History of Music (2,2,2) Prerequisite: MUS 261, 262 and for 362 & 363 only, MUS 301. 361: Stylistic development of music of the Medieval and Renaissance eras. 362: music history and literature of the 17th and 18th centuries. 363: Music history and literature of the 19th and 20th centuries.

US 364. Contemporary Music Literature (2) Prerequisite: MUS 301 and 363. A study of music from the contemporary era.

MUS 365. Modern Jazz (3) Prerequisite: MUS 116, 236. Study of jazz music and th musicians from 1940 to the present. Presentation in both lecture and performanc format.

MUS 371. Instrumental Pedagogy and Literature (2) Prerequisite: Two years of co lege instrumental applied music. Problems, materials, and methods in teachin instruments to private students.

MUS 372. Jazz Pedagogy (2) Prerequisite: MUS 235, 285. Techniques and methods fo teaching jazz, emphasizing rehearsal techniques for jazz ensembles. Lecture forma plus practical conducting experience with one of the university's jazz ensembles.

MUS 373. Instrumental Methods (2) Prerequisite: Consent of instructor; MUS 285, 243 245, 247, 249. Methods of teaching instrumental classes and ensembles fro elementary through senior high school. Includes repertoire, marching band tech niques, history, the designing of a total program, rehearsal techniques, technique of developing musicianship, and practical aspects of teaching instrumental music.

MUS 375. Piano Pedagogy I (3) Prerequisite: Two years of private piano instruction a college level. Problems, materials, and methods and teaching beginning piano t children.

MUS 376. Piano Pedagogy II (3) Prerequisite: Two years of private piano instruction a college level. Problems, materials, and methods in teaching piano to older student of high school and early college age.

MUS 377. Choral Methods (2) Prerequisite: Consent of instructor; MUS 285. Methods o teaching choral ensembles from elementary through senior high school. Include repertoire, history the designing of a total program, rehearsal techniques, technique of developing musicianship and the practical aspects of teaching choral music.

MUS 379. Vocal Pedagogy and Literature (2) Prerequisite: Two years of college voc study. Basic procedures of teaching voice. Materials for solo voice studied an performed.

MUS 393. Junior Recital (1) Prerequisite: Consent of faculty. A performance of at lea 20 minutes of repertoire selected from the appropriate levels of difficulty. May b repeated once for credit.

MUS 395. Upper Level Applied Music, Private Lessons (1) Prerequisite: Consent instructor. One half hour lesson per week. Requires a minimum of five practice hou per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viola	Trombone
Cello	Baritone Horn
String Bass	Tuba

Flute and Piccolo
Oboe
Clarinet
Percussion
Classical Guitar
Harpsichord

US 396. Upper Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

US 397. Upper Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

US 403. Advanced Composition (3) Prerequisite: MUS 203 and consent of instructor. Music majors only. Advanced study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

US 475. Practicum in Applied Teaching (1) Prerequisite: MUS 371, or 375-376, or 379. Students will develop and implement a private studio under the guidance of a faculty member.

US 485. Advanced Conducting (2) Prerequisite: MUS 285. Study in either choral or instrumental techniques. This course enables the student to work with the appropriate ensemble using selected literature, i.e., orchestral, wind ensemble or vocal literature, for the various mediums.

US 490. Thesis (1) A research thesis in a subject to be determined in consultation with the music faculty during the semester preceding the taking of this course.

US 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

US 493. Senior Recital (1) Prerequisite: Consent of the music faculty. A performance of at least 40 minutes of repertoire selected from the appropriate levels of difficultly. May be repeated once for credit.

US 495. Seminar in Music (1-3) Prerequisite: Junior standing. Consideration of special subjects not covered in detail in regular course offerings. More than one topic may be taken for credit.

US 499. Honors Work in Music (2-3) Prerequisite: Eligibility for honors program, and junior or senior standing. Independent study for honor students.

r 292 and 492; 294 and 494, see explanation on p. 82.

FOREIGN LANGUAGES AND LITERATURES

Dr. McNab, *chairperson.* Dr. Beeler, Dr. Deagon, Dr. Lapaire, Mr. Lowe, Dr. J. Mount, Dr T. Mount, Dr. Parra, Dr. Perez, Dr. Sparks, Ms. Stites, Ms. Toplin, Dr. Woodhouse.

A student who offers two high school units in French, German or Spanish, who wishes to continue the study of the same language, will normally begin at the intermediate level However, a student whose placement test scores and high school grades are not satisfactory will be placed in and granted credit for the elementary level. A student who offers three or more high school units in French, German, or Spanish, and whose placement tes scores are sufficiently high, may gain admission to the 300 level courses in the language.

The Department of Foreign Languages and Literatures offers the B.A. degree in French or Spanish.

Requirements for a Concentration in French for the B.A. degree: Completion of all 300 level courses in French and at least six credit hours at the 400 level, only three of which may be obtained by means of a FRH 491. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: MLN 305; HST 101 and 102, one course in English literature; and one additional foreign language through the intermediate level. A studen with a second concentration is exempt from the second language collateral.

Requirements for a Concentration in French for the B.A. degree with Teacher Certification: Students seeking certification in French (K-12) must complete the requirements for the French concentration (including collaterals) and the professional education requirements listed under the School of Education. Entry requirements to the School of Education Teacher Education Program are described on page 219.

French Course Descriptions

(Department of Foreign Languages and Literatures)

FRH 101-102. Introductory French (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns o spoken French; reading, writing, and basic conversation. Fall and spring.

FRH 105. French for Tourists (3) General interest course, but designed specifically fo those planning to travel in a French-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visua aids used extensively. Course may be structured to answer specific individua needs.

FRH 201-202. Intermediate French (3-3) Prerequisite: FRH 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas including literature, history, politics, sociology, religion and others. Oral discussions to enable the student to apply his knowledge of the language. Brief explanations o grammatical points when necessary.

FRH 305. Conversation and Composition (3) Prerequisite: FRH 202 or equivalent. Intensive training in spoken and written French.

FRH 306. Advanced Grammar (3) Prerequisite: FRH 202 or equivalent. Comparative grammar and translation; required of those preparing to teach at the high school level.

FRH 307. Phonetics (3) Prerequisite: FRH 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those preparing to teach at the high school level.

FRH 311, 312. French Civilization (3,3) Prerequisite: FRH 202. Geographical, historical, and cultural aspects of France. 311: From prehistoric times to the French Revolution, 312: From the French Revolution to the present.

FRH 321, 322. Survey of French Literature (3,3) Prerequisite: FRH 202. Extensive readings covering the main currents of French literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports.

FRH 336. Explication De Texte (3) Prerequisite: FRH 305 or equivalent. Training in French textual criticism; oral and written reports.

FRH 405. Advanced Conversation and Composition (3) Prerequisite: FRH 305 or equivalent. Emphasis on oral French, essay writing and translation. Recommended for students preparing for teaching.

FRH 425. French Literature of the Sixteenth Century (3) Prerequisite: FRH 322 or equivalent. Major writers of the Renaissance: Rabelais, Ronsard, Du Bellay, Montaigne, and others; oral and written reports.

FRH 426. French Literature of the Eighteenth Century (3) Prerequisite: FRH 322 or equivalent. Major writers of the French Enlightenment: Montesquieu, Voltaire, Diderot, Rousseau and others; oral and written reports.

FRH 430. The French Novel of the Twentieth Century (3) Prerequisite: FRH 322. Reading, discussion and analysis of representative works of Proust, Gide, Malraux, Sartre, Camus, and others; oral and written reports.

FRH 435. The Nineteenth Century French Novel (3) Prerequisite: FRH 322. Reading, discussion and analysis of major novels; romanticism, realism and naturalism.

FRH 436. French Classicism (3) Prerequisite: FRH 322. Reading, discussion and analysis of representative works with emphasis on dramatic literature of the 17th century: Corneille, Racine, and Moliere.

FRH 437. French Lyric Poetry from Villon to Baudelaire (3) Prerequisite: FRH 322 or equivalent. Major lyric forms from the Middle Ages to the 19th century; oral and written reports.

FRH 438. Masterpieces of French Drama (3) Prerequisite: FRH 322 or equivalent. The theatre in France from the Renaissance to modern times. Representative texts; oral and written reports.

FRH 439. Masterpieces of French Prose Fiction (3) Prerequisite: FRH 322 or equivalent. Representative works of imaginative French Prose from the 17th century to the present; oral and written reports.

FRH 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

FRH 495. Seminar in French Literature (1-3) Prerequisite: FRH 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentation, reports, discussions.

FRH 499. Honors work in French (2-3) Prerequisite: Senior standing and eligibility for honors program. Independent study for honors students.

Requirements for a Concentration in Spanish for a B.A. degree: SPN 305, 306, 307, 311, 312, 321, 322, and at least two courses on the 400 level, only one of which may be obtained by means of SPN 491. A "C" or better grade in each course taken in the area of concentration, or better than 2.0 average on all courses taken in the area of concentration. Required collaterals: MLN 305, HST 101 and 102, one course in English literature, and one additional foreign language through the intermediate level. A student with a second concentration is exempt from the second language collateral.

Requirements for a Concentration in Spanish for the B.A. degree with Teacher Certification: Students seeking certification in Spanish (K-12) must complete the requirements for the Spanish concentration (including collaterals) and the professional education requirements listed under the School of Education. Entry requirements to the School of Education Teacher Education Program are described on page 219.

Spanish Course Descriptions

(Department of Foreign Languages and Literatures)

SPN 101-102. Introductory Spanish (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken Spanish; reading, writing and basic conversation.

SPN 105. Spanish for Tourists (3) General interest course, but designed specifically for those planning to travel in a Spanish-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs.

SPN 201-202. Intermediate Spanish (3-3) Prerequisite: SPN 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas,

including literature, history, politics, sociology, religion and others. Oral discussion to enable the student to apply his knowledge of the language. Brief explanation of grammatical points when necessary.

SPN 209. Spanish Literature in Translation (3) Study of representative works from the literature of Spain. Reading and class discussions in English.

SPN 210. Spanish-American Literature in Translation (3) Study of representative works from the literature of Spanish America. Readings and class discussion in English.

SPN 211. Spain Today (3) An examination of the institutions and social fabric of contemporary Spain as they evolved from traditional roots, including units on history, politics, regional culture, literature, music, art, customs and economic resources. Readings and class discussions in English.

SPN 212. Latin American Today (3) An examination of the institutions and social fabric of contemporary Latin American as they evolved from traditional roots, including units on history, politics, indigenous cultures, literature, music, art, customs, and economic resources. Readings and class discussions in English.

SPN 304. Business Spanish (3) Prerequisite: SPN 202 or equivalent. Designed for students who need familiarization with the terminology necessary for the fields of economics, business, accounting, natural sciences and others. Business correspondence in Spanish and the currency systems of the Spanish-speaking countries are included.

SPN 305. Conversation and Composition (3) Prerequisite: SPN 202 or equivalent. Intensive training in spoken and written Spanish.

SPN 306. Advanced Grammar (3) Prerequisite: SPN 202 or equivalent. Grammatical forms and usage; required of those who plan to teach at the high school level.

SPN 307 Phonetics (3) Prerequisite: SPN 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those who plan to teach at the high school level.

SPN 311, 312. Spanish and Spanish-American Civilization (3,3) Prerequisite: SPN 202 or equivalent. Geographical, historical and cultural aspects of Spain (311) and Spanish America (312).

SPN 321, 322. Survey of Spanish Literature (3,3) Prerequisite: SPN 202 or equivalent. Extensive readings covering the main currents of Spanish literature; emphasis in classroom discussions on textual analysis and criticism; oral and written reports.

SPN 405. Advanced Conversation and Composition (3) Prerequisite: SPN 202 or equivalent. Emphasis on oral Spanish, essay writing and translation. Recommended for students preparing for teaching.

SPN 421, 422. Spanish-American Literature (3,3) Prerequisite: SPN 322 or equivalent. 421: Representative works from colonial times to the Modernista movement. 422: Representative works from the Modernista movement to the present with emphasis on the novel and poetry.

SPN 430. Spanish Literature of Middle Ages (3) Prerequisite: SPN 322 or equivalent. Literature of medieval Spain.

SPN 431. Golden Age Literature (3) Prerequisite: SPN 322 or equivalent. Spanish literature of the sixteenth and seventeenth centuries.

SPN 432. Modern Spanish Literature (3) Prerequisite: SPN 322 or equivalent. Spanish literature from the beginning of the eighteenth century to the Generation of 1898.

SPN 433. Contemporary Spanish Literature (3) Prerequisite: SPN 322 or equivalent. Spanish literature from the Generation of 1898 to the present.

SPN 434. Cervantes (3) Prerequisite: SPN 322 or equivalent. Don Quixote and other selected works.

SPN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

SPN 495. Seminar in Spanish Studies (1-3) Prerequisite: SPN 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions.

SPN 499. Honors Work in Spanish (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

German Course Descriptions

(Department of Foreign Languages and Literatures)

GER 101-102. Introductory German (3-3) Prerequisite: Emphasis on achievement of an active command of the language. Aural-oral practice, intensive study of the basic patterns of spoken German; reading, writing and basic conversation.

GER 201-202. Intermediate German (3-3) Prerequisite: GER 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including history, literature, religion, and the sciences. Composition and conversation to enable the student to apply and expand his knowledge of the language. Individual projects relating to the student's major field of interest.

GER 209. German Literature in Translation (3) Study of representative works from the literature of the German-speaking world. Readings and class discussions in English.

GER 305. Conversation and Composition (3) Prerequisite: GER 202 or consent of instructor. Intensive training in spoken and written German.

GER 321, 322. Survey of German Literature (3,3) Prerequisite: GER 202 or consent of instructor. Extensive reading covering the main trends of German literature;

emphasis in classroom discussion on textual analysis and criticism; oral and written reports. 321: Literature through Goethe. 322: Literature beginning with the Romantiker.

GER 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

Classics Course Descriptions

(Department of Foreign Languages and Literatures)

CLA 110. English Words from Latin and Greek Elements (3) A systematic study of the Latin and Greek elements from which over two thirds of English vocabulary are formed. Emphasis on developing a better understanding of English vocabulary and usage, learning to analyze unknown words encountered in reading, learning principles of linguistic change, and examining the history of the English language. Special sections on legal, scientific, military and sports terminology. No knowledge of Latin or Greek is needed.

CLA 209. Greek and Roman Literature in Translation (3) Major authors of ancient Greece and Rome. Emphasis on ancient literature in its social context and on classical themes in later literatures.

LAT 101-102. Introductory Latin (3-3) Emphasis on achievement of an active knowledge of the Latin language and reading ability in classical Latin. Intensive study of Latin grammar, aural/oral practice; reading from Latin authors, especially Ovid; discussions to introduce the students to the literature, culture and society of ancient Rome.

LAT 201-202. Intermediate Latin (3,3) Prerequisite: LAT 102 or equivalent. A review of the grammatical structure of the language. Emphasis on developing reading skills through readings from various Latin authors.

Modern Languages Course Descriptions

(Department of Foreign Languages and Literatures)

LIN 305. Romance Linguistics (3) Prerequisite: FRH 307 or SPN 307 or equivalent. Origins of French and Spanish. Historical phonology, morphology and syntax; some attention to comparative and applied linguistics.

Portuguese Course Descriptions

(Department of Foreign Languages and Literatures)

PRT 101-102. Introductory Portuguese (3-3) Emphasis on the acquisition of an active and useful command of the language. Intensive aural-oral practice with the study of grammatical structures along with the pursuit of a reading and writing ability. Discussions to introduce the students to the culture of the Portuguese-speaking areas of the world, primarily Brazil and Portugal.

FRENCH

(See Foreign Languages and Literatures)

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

HEALTH, PHYSICAL EDUCATION AND RECREATION

Dr. Charles Lewis, *chairperson,* Mr. D. Allen, Dr. E. Allen, Mr. Blackmore, Mr. Brooks, Ms. Brown, Mr. Chapman, Dr. Combs, Dr. D. Culkin, Mr. Ellington, Mr. Gibson, Dr. Gladwell, Mr. Guthrie, Dr. Hatcher, Dr. Hollifield, Mr. Honeycutt, Mr. Lane, Mrs J. Lewis, Miss McDaniel, Dr. D. Miller, Ms. Oden, Ms. Parker, Mr. Scalf.

Requirements for a Concentration in Physical Education for the B.A. degree: PED 200 plus two hours from PED 201-204, 235, 315, 320, 340, 349, 355, 360, 386, 415, 435, HEA 201, and elective chosen from PED 421-426, SOC 200, PED 236, 301, 336, 455, 460. PED 216 and 217 must be taken as part of the Basic Studies Natural Sciences requirement. Students may qualify for add-on certification in health by completing the following additional courses: HEA 105, 205, 207, 234, 304 and 305.

Students must satisfy the aquatics competency test or one of the following courses: PED 105, 106, 107, 108, or 109.

Health Course Descriptions

(Department of Health, Physical Education and Recreation)

HEA 105. Individual Well-Being (3) Topical areas and issues in health explored within the physical, emotional, social, intellectual, and spiritual dimensions of personal wellness.

HEA 201. First Aid, Safety, and Cardio-Pulmonary Resuscitation (2) A certification course for American Red Cross First Aid and Cardio-Pulmonary Resuscitation. The class will meet for two lecture hours and one lab hour each week.

HEA 205. Reproduction and Sexuality (3) Prerequisite: HEA 105. Emphasizes the anatomy and physiology of reproduction, conception, prenatal growth and parturition; relevant issues pertaining to human sexuality, childbearing and sexual diseases.

HEA 207. Nutrition (3) The main focus of this course will be the application of the principles of nutrition as related to health, various levels of wellness, and practices of health care. Emphasis on basics of sound nutrition, requirements of various food elements, diet planning, diet patterns for specific age groups, nutritional fads and weight control.

HEA 234. Principles of Health Education (3) An introduction to health education program planning, implementation, and evaluation in various health promotion settings. Focuses on responsibilities and strategies of entry-level health educators. Includes a supervised experience in a health-related agency.

HEA 304. Health and Safety Education, Grades K-9 (3) An overview of the three components of the school health program: health instruction, health services, and the healthful school environment. Focuses on method and materials for health instruction, grades K-9. Emphasizes the role and responsibility of the classroom teacher in the areas of first aid, safety, and health problems of children.

HEA 305. Curriculum Methods in Health (3) Examines theorganization and development of the school health curriculum. Emphasis on practical skills related to unit planning and lesson presentation.

Physical Education Course Descriptions

(Department of Health, Physical Education and Recreation)

PED 101. Foundations of Physical Activity (2) Study of immediate and long-term effects of physical activity and establishment of individualized programs for acquiring and maintaining physical fitness. One lecture and two hours of activity each week.

PED 102. Physical Education Activity (1) Prerequisite: Students planning to enroll in PED 102 sections of Aerobic Dance, Physical Conditioning, Running Fitness, Weight Training, Basic Canoeing, Basic Sailing, Cross-Country Skiing, Exercise and Weight Control, and Ice Skating should consult individual instructors about prerequisite requirements. Fundamentals of Hiking, Climbing and Rapelling, Basic Orienteering, and Rifle Marksmanship may be taken for PED 102 or MLS 103 credit. Students may accumulate up to seven hours credit in PED 102, but are limited to one hour per semester. Three hours each week.

Archery
Tennis
Golf
Bowling
Gymnastics
Weight Training
Racquetball
Physical Conditioning
Intermediate Tennis
Dance Techniques
Cross-Country Skiing
Basic Orienteering
Rifle Marksmanship
Badminton/Tennis
Racquetball/Tennis
Racquetball/Archery
Racquetball
Aerobic Dance
Basic Canoeing
Motorboat Handling
Running Fitness
Exercise and Weight Control
Basic Sailing
Ice Skating
Hiking, Climbing and Rapelling

PED 103. (REC 103) Physical Education Activity - Program of Outdoor Pursuits (3) Prequisite: PED 101 or equivalent. Study of and participation in the skills and knowledge of various outdoor recreational activities in a natural setting. Minimum of 10 one hour lecture sessions and a minimum of 11 excursion days. Travel and

subsistence costs for activities borne by the student. (Non-majors may repeat PED 103, in a different activity area, only once.)

PED 104. Scuba (2) Prerequisite: PED 102 (Swimming) or consent of instructor. Basic SCUBA Diving Course. Emphasizes the history, theory and principles of diving. Hyperbaric physiology; equipment development; use and maintenance; development of diving skills and diving safety. Meets certification requirements for all national certifying agencies to the open water level.

PED 105. Lifeguard Training (1) Prerequisite: Current certification in CPR and First Aid. Trains and certifies for American Red Cross Lifeguard Training.

PED 106. Beginning Swimming (1) Designed to teach one how to swim and to instruct the basic strokes including front crawl stroke, backstroke, breaststroke, sidestroke, elementary backstroke as well as survival swimming.

PED 107. Intermediate Swimming (1) Designed to develop competency in basic swimming strokes of front crawl stroke, backstroke, breaststroke, sidestroke and elementary backstroke as well as basic skills of water safety and lifesaving.

PED 108. Advanced Swimming (1) Emphasis on developing competencies in basic swimming strokes of front crawl, backstroke, breaststroke, sidestroke, elementary backstroke; turns; develop skill in lifesaving techniques, water safety and cardiovascular conditioning.

PED 109. Water Safety (1) Prerequisite: Possess current Red Cross Emergency Water Safety or Lifeguard Training Certificate. Designed to instruct students how to teach others the various skills and courses offered in the American Red Cross Swimming Programs.

PED 136. (CRA 136) Movement Exploration (3) Study through creative dance techniques of the body's potential as a tool for creative expression, exploration of the relationship as a tool for creative expression, exploration of the relationship of dance to other art forms. Solo and group work using basic art concepts and the individual's own experience as material for movement improvisation and composition. No dance training necessary.

PED 200. Dance, Tumbling, Outdoor Pursuits (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities. Three hours each week.

PED 201. Softball, Soccer, Aerobics (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities. Three hours each week.

PED 202. Archery, Football, Volleyball (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities. Three hours each week.

PED 203. Weight Training, Basketball, Tennis (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities. Three hours each week.

ED 204. Badminton, Golf, Track/Field (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities. Three hours each week.

ED 216. (BIO 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three lab hours each week.

ED 217. (BIO 217) Human Anatomy and Physiology II (3) The study of human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement.

ED 235. History and Philosophy of Human Movement (3) Study of the discipline of human movement in ancient and modern civilizations with particular attention on philosophies influencing its historical development in Western Europe and America.

ED 236. Athletic Officiating (3) Rules, officiating techniques, and problems arising in officiating with emphasis on football, basketball, baseball, volleyball, and tennis.

D 301. Prevention, Treatment, and Rehabilitation of Athletic Injuries (3) Prerequisite: PED 216. A basic course in the management of athletic injuries.

D 315. Motor Development (2) Prerequisite: PED 216 or consent of instructor. Analysis of the sequential progression of fundamental motor skills from infancy through adolescence. Study of physical growth patterns and biological maturity as related to motor performance. Attention also given to perceptual motor programs for children.

D 320. Methods of Teaching Motor Activity (3) Emphasis on instructional methodology appropriate to teaching motor skills and sports activities, formulation of objectives, and lesson planning. Includes practicum in teaching.

D 335. Reading in Physical Education (3) A comprehensive review of literature in physical education and related areas.

D 336. An Approach to Coaching (3) The application of philosophical and psychological knowledge and principles to the administration and coaching of sports with special emphasis on research literature.

D 340. Kinesiology (3) Prerequisite: PED 216. (BIO 216). Study of neuromuscular and mechanical principles of human motion, with emphasis on movement problems most often encountered in fitness activities and sport skills.

D 349. (BIO 349) Physiology of Exercise and Sport (4) Prerequisite: PED 216 or BIO 345. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and two laboratory hours each week.

D 355. Measure and Evaluation of Human Physical Performance (3) Elementary statistical techniques used in research and interpretation of data; identification of physical fitness and movement components; evaluation of measures now available in the field and administration of performance tests.

PED 360. Motor Learning (3) An introduction to the principles of motor learning, this course is concerned with the analysis and application of physiology and psychological principles related to the learning and performance of motor skills. Two lecture and one laboratory hours each week.

PED 379. Legal Liabilities in Athletics and Physical Education (3) Prerequisite: Junior or senior level. An introduction to the legal liabilities existing in physical education and athletics. Terminology, procedure, operations of the law and case studies will be studied enabling students to positively confront liability situations should they arise. Emphasis on state laws as well as national laws.

PED 386. Physical Education in the Primary Grades (K-3) (3) A study of the theory, techniques and methods of developing and implementing a total program of physical education for children in grades K-3. Emphasis on the "movement approach" to learning fundamental motor skills, equipment construction, rhythms and dance, stunts and tumbling, classroom games of low organization, including activities in gymnastics, dance and fitness development.

PED 387. Physical Education in the Intermediate Grades 4-6 (3) Methods and materials for developing and conducting a yearly program of physical education fo children in grades 4-6,. Emphasis on refinement of sports skills through lead-up games, relays and other games of low organization, including activities in gymnastics, dance and fitness development.

PED 401. Advanced Athletic Training (3) Prerequisite: PED 301. Concepts, skills, and techniques for the care of athletic injuries. Study of prevention, evaluation and recognition, first aid/emergency care, rehabilitation, organization and administration counseling and guidance, and education as related to athletic injuries.

PED 415. Movement Considerations for Special Populations (3) Prerequisite: PED 21 and junior or senior standing. Problems relating to the physiological and kinesiolog needs of the individual with physical limitations. Emphasis on the selection of activities that will provide opportunities for optimum development of which he or she i capable. Two lecture and two laboratory hours each week.

PED 416. Laboratory Techniques and Research Methods in Exercise Physiology (3 Prerequisite: PED 349 and consent of instructor. A study of laboratory technique and research methods used to evaluate physiological response to exercise an training. Primarily a laboratory experience.

PED 421-422-423-424-425-426. Methods of Coaching (2) Emphasis on strategy, fundamentals, techniques, training and related duties.

421 Basketball	424 Track and Field
422 Basketball	425 Soccer
423 Football	426 Volleyball

PED 435. Organization and Administration of Health and Physical Education ar Athletics (3) Prerequisite: Junior or senior standing or consent of instructor. Analys of problems associated in its planning, organizing, and directing physical educati and athletic programs.

ED 436. Intramural (3) Prerequisite: Junior or senior standing. The position of intramural activities in the overall program of physical education. Analysis of problems involved in the administration and organization with emphasis on the practical approach in school systems.

ED 440. Selected Topics in Physical Education (3) Survey course for public school teachers with emphasis on updating traditional ideas and principles and introducing new ideas and problems in health and physical education.

ED 455. Advanced Tests and Measurements in Physical Education (3) Prerequisite: PED 355. Statistical techniques as applied to research in physical education; measurement and evaluation in areas of agility, balance, power, flexibility, kinesthetic perception and anthropometrics.

ED 460. Sport Psychology (3) Prerequisite: Junior or senior standing within the department or consent of instructor. Study of psychological and psychosocial knowledge and principles as they relate to sport participants and the sport environment.

D 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

D 499. Honors Work in Physical Education (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Requirements for a Concentration in Parks and Recreation Management for the A degree: Core Courses: REC 265, 268, 270,348, 360, 368, 375, 450, 465, 469, 498. mmercial Recreation Option: REC 350, 351, 366, 495. Required collaterals (13 hours): G 201, 203, MGT 350, MKT 340.

Outdoor Recreation Option: REC 271, 366, 470. Required collaterals (12 hours): BIO 6 and two of the following: 356, 366, 456, 475.

Therapeutic Recreation Option: REC 369, 370, 467, 468; PED 216, 349. Required lateral (12 hours): EDN 260; PSY 347; SOC 215; SWK 396. A grade of "C" or better all required recreation and physical education courses.

Recreation Course Descriptions

(Department of Health, Physical Education and Recreation)

C 103. (PED 103) Physical Education/Recreation Activity Program of Outdoor Pursuits (3) Prerequisite : PED 101 or equivalent. Study of and participation in the skills and knowledge of various outdoor recreational activities in a natural setting. Minimum of 10 one-hour lecture sessions and a minimum of 11 excursion days. Travel and subsistence costs for activities borne by the student. (Non-majors may repeat PED 103, in a different activity area, only once.)

C 265. Introduction to Recreation and Parks (3) Scope, development, structure, purposes, functions, interrelationships of public, commercial, private and voluntary agencies engaged in rendering recreation and park services.

REC 268. Leadership and Group Dynamics in Leisure Services (3) Skills and techniques of group leadership; social dynamics of individuals in various group settings Students observe, participate in, and lead activities in a variety of leisure service situations in and out of class.

REC 270. Program Planning for Recreation and Parks (3) Prerequisite: REC 265. Ar introduction to programming for recreation and parks, including the major areas o recreation, planning principles, objectives and evaluation. Program factors such as scheduling, personnel, facilities, equipment, etc., will be considered.

REC 271. Camp Leadership and Management (3) Prerequisite: REC 265 or consent o instructor. Study of the segment of park recreation programs involved with curren camp practices, philosophy, leadership and management.

REC 280. Experiential Techniques for Interpreting Outdoor Recreation Resourses (3 An introduction to the techniques for interpreting natural and cultural resources t the visiting public in outdoor recreation settings. Focus is on the development o experiential program techniques and the use of written, visual, and audio-visua media to provide outdoor living skills, natural history, cultural heritage, and eco logical concepts to the public.

REC 348. Practicum in Recreation (3) Prerequisite: REC 265, 268, and 270. Supervise experience in recreation and/or park setting. Relates theory to practical applicatio in the field. Placements chosen from community, commercial, outdoor or therapeuti recreation settings.

REC 350. Recreation and Commercial Enterprise (3) Prerequisite: REC 265 or conser of instructor. Identification, development, operation and impact of profit-oriente recreation enterprises. Investigation of feasibility studies, sources of technical assis tance, financing, facility planning and development, marketing and manageri requirements.

REC 351. Travel and Tourism (3) An introduction to the commercial area of the leisu field which is concerned with travel and tourism.

REC 360. Outdoor Recreation (3) Prerequisite: REC 265 or consent of instructor. Th scope, organization, and program activities using resources in large parks, forest and primitive areas. Consideration will be given to private, local, state, and feder agencies concerned with outdoor recreation in these areas.

REC 366. Water Related Recreation and Park Facilities and Programs (3) Prerequisit REC 265 or consent of instructor. Water-based resources for recreation activiti and programs. Emphasis on swimming pools and coastal resources managemen Attention also given to reservoirs/lakes, rivers/streams, commercial amusements a decorative uses of water.

REC 367. The Arts and Recreation (3) Prerequisite: REC 265. Administrative problem involved in organizing quality cultural arts in recreation and parks departments a other leisure services agencies. Areas to be examined include financing, perso nel, facilities, and equipment. Funding possibilities and relationships between t

National Endowment for the Arts, state arts, state arts councils, local arts councils, and recreation and parks departments will also be studied.

REC 368. Introduction to Therapeutic Recreation and Special Populations (3) Prerequisite: REC 265 or consent of instructor. Therapeutic recreation service: its historical and professional development; characteristics and leisure needs of special populations it serves; and settings for service delivery - hospitals, residential care facilities, and communities.

REC 369. Therapeutic Recreation for the Aging (3) Prerequisite: REC 368. Biological, sociological, and psychological aspects of aging as related to the planning and delivery of therapeutic recreation services for dependent and independent elderly.

REC 370. Assessment and Adaptation for Therapeutic Recreation Services (3) Prerequisite: REC 368. Methods and procedures for client assessment, activity analysis, and task analysis in preparation for the adaptation of programs, facilities, and equipment for therapeutic recreation service delivery to persons with disabilities.

REC 375. Management of Leisure Service Systems (3) Prerequisite: REC 348 or consent of instructor. Organization and administration of leisure services including the management of human resources, motivation and conflict resolution, managerial leadership, legal aspects of leisure services and issues related to policy development and implementation.

REC 450. Conflict Resolution in Recreational Leadership (3) Prerequisite: REC 265. An experiential approach to the study of conflict resolution in recreation leadership and management.

REC 465. Park Planning and Design (3) Prerequisite: REC 375. Basic principles in planning design and development of park and recreation areas and facilities. Safety, legal liability,contracting, maintenance and vandalism control are also studied.

REC 467. Leisure Education in Therapeutic Recreation (3) Prerequisite: REC 368. An overview of the leisure education process as an aspect of therapeutic recreation service delivery. The course encompasses a review of leisure education and strategies for the development, implementation, and evaluation of leisure education programs for persons with disabilities.

REC 468. Therapeutic Recreation: Program Planning and Implementation (3) Prerequisite: REC 370, corequisite: REC 467. Advanced level course in programming and program implementation for individuals who are disabled or in other special population groups. Emphasis on sources of funding, community awareness and successful programing techniques.

REC 469. Research Methods in Recreation and Parks (3) Prerequisite: REC 375. Research techniques employed to solve problems in the recreation and parks field. Research projects, workshops and clinics relative to specific problems on an independent and group basis will be undertaken.

REC 470. Outdoor Recreation Management (3) Prerequisite: REC 360. Advanced level course in giving in-depth exposure to management techniques necessary for the

administration of major outdoor recreation areas including national park areas, national forest preserves, state parks, county park systems, municipal park systems and commercial areas such as marinas and camp sites. Emphasis on budgeting, personnel management, facility planning and design.

REC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

REC 495. Seminar in Recreation (1-3) Prerequisite: REC 375. Discussion of selected topics drawn from current literature. Discussions with various professionals from county, municipal, state, federal, and private recreation and park agencies.

REC 498. Internship in Leisure Services (6) Prerequisite: REC 375 and six hours from REC 465, 469, or 495. A progression of professional field experiences relating theory to practical experience. Work experiences involving program planning and administrative procedures in county, municipal, institutional and voluntary settings.

REC 499. Honors Work in Recreation (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492; 294 and 494, see explanations on p. 82.

HISTORY

Dr. McLaurin, *chairperson.* Mr. W. Allen, Dr. Bailey, Dr. Berkeley, Dr. Cable, Dr. Fink, Dr Kalia, Dr.Kinzer, Dr. McCaffray, Dr. McGuire, Dr. Toplin, Dr. Usilton, Dr. Watson.

Requirements for a Concentration in History for the B.A. degree: HST 101, 102, 103, 201, 202; an additional 27 hours in history at the 300 - 400 level, and overall "C" average in courses taken within the department. Students may take three hours at the 200 level in addition to HST 201 and 202, and are required to take at least three hours at the 400 level, and may count no more than six hours in HST 491 and 495 toward the major. Students are required to take at least one upper level course in European, United States, and Third World history (Africa, Asia, Latin American and Middle East). HST 490, Senior Seminar, is required of all students. Students are also expected to complete the required lower level courses before upper level ones. Required collaterals include 21 hours selected from departmentally-approved courses in at least four of the following areas: English, foreign languages and literatures, philosophy and religion, anthropology, economics, geography, political science and sociology. History majors working toward certification in history or social studies for secondary school teaching must complete a minimum of 21 hours in anthropology, economics, geography, political science and sociology with courses in at least three areas, in addition to Teacher Education Program requirements.

History Courses Descriptions

HST 101,102. Western Civilization (3,3) 101: History of Civilization to 1650. 102: History of Civilization from 1650 to the present.

HST 103. Introduction to Global History (3) An introduction to the global effects of colonialism, industrialism and nationalism with special emphasis on Asia, Africa Latin America and the Middle East since 1500.

HST 201, 202. American History (3,3) 201: United States to 1865. 202: United States from 1865 to present.

HST 237. Women in Modern America (3) Survey of the female experience from the mid-nineteenth century to the present. A focus on three areas which affect the lives of modern women: work, politics and sexuality. Differences between the first and second woman's movement, the sexual revolutions of the 1920s and 1960s, and the changing nature of women's work in modern and post-modern society are explored in a comparative context.

HST 261. Afro-American History (3) A concise survey of the major themes and events in the history of black Americans from the colonial period to the present.

HST 271. The Sea History (3) Prerequisite: HST 101-102 or consent of instructor. The history of mankind's interaction with the sea, focusing on its importance for resources, trade and transport, exploration, and warfare.

HST 273. Evolution of Warfare (3) The development of war from ancient times to the present, emphasizing its effect upon society.

HST 275. History of Science since 1500 (3) An introduction to the history of the major developments in western science from the scientific revolution to the present, including an examination of both the origins of scientific discoveries and their impact on society.

HST 300. The American Military Experience (3) Prerequisite: HST 201-202 or consent of instructor. A survey of the American military experience from the colonial period to the present with emphasis on the wars of America, the evolution and development of military policy, strategy, tactics, and technology; and the relationship of military affairs to the political, social, and economic institutions of America.

HST 305. The Ancient Near East (3) Prerequisite: HST 101-102 or consent of instructor. An intensive political and cultural study of ancient Babylonian, Egyptian, and other Near Eastern civilizations.

HST 306. Ancient Greece and Rome (3) Prerequisite: HST 101-102 or consent of instructor. A study of the civilization of ancient Greece and Rome with special emphasis on the Greek classical period and the Pax Romana.

HST 311,312. History of England (3,3) Prerequisite: HST 101-102 or consent of instructor. 311: From the Roman invasion to the War of the Roses. 312: From King Henry VIII to the twilight of the British Empire.

HST 315. History of Ireland (3) Prerequisite: HST 101-102 or consent of instructor. A brief survey of the history of Ireland from Neolithic times to the present, with emphasis on the Celtic culture, Christian influences, and the religio-political conflicts of the nineteenth and twentieth centuries.

HST 316. British Empire and Commonwealth (3) Prerequisite: HST 101-102 or consent of instructor. A consideration of the British Empire, evolution of the Commonwealth and the emergence of additional post-World War II areas of independence.

HST 321. History of Modern France (3) Prerequisite: HST 101-102 or consent of instructor. History of France from the French Revolution and Napoleon through the political, economic and social developments of the nineteenth century to the World Wars of the twentieth century.

HST 323. History of Modern Germany (3) Prerequisite: HST 101102 or consent of instructor. Study of German nationalism. German unification, the Bismarckian empire, Hitler's Third Reich, and the two Germanies since World War II.

HST 325, 326. History of Russia (3,3) Prerequisite: HST 101-102 or consent of instructor. 325: To the Bolshevik Revolution. 326: From the Bolshevik Revolution to the present.

HST 327. Modern Israel (3) Prerequisite: HST 102 or consent of instructor. The origins of the modern state of Israel; the history of Zionism, the Holocaust, and Great Power Diplomacy; evolution of Israel since 1948; political, social, economic, cultural, intellectual, scientific, and technological development; the Arab-Jewish conflict; and Israeli democracy and world politics.

HST 328. European Social History from 1650 to the Present (3) Prerequisite: HST 101-102 or consent of instructor. The lives of ordinary people in different regions of Europe, under feudal, monarchial, capitalist, and Marxist societies; the impact of climate, geography, language, religion, education, and work on individuals, families, social groups, and nations.

HST 329. European Intellectual History from 1650 to the Present (3) Prerequisite: HST 101-102 or consent of instructor. A survey of the main currents of European thought and their relation to European society in general from the Scientific Revolution to present.

HST 330. Womanhood in America: Family, Work and Community Life (3) Prerequisite: HST 201-202 or consent of instructor. An examination of American women and women's roles from the colonial period to the present.

HST 331. American Urban history (3) Prerequisite: HST 201-202 or consent of instructor. The transition in America from a pre-industrial rural society to an industrial urban society. This course explores the effect urbanization had upon America's social political and economic institutions and concludes with an examination of how the "revolution" in transportation and technology shaped the design of American cities.

HST 333. American Social History (3) Prerequisite: HST 201-202 or consent of instructor. The impact of social change on American life from colonial times to the present. An examination of changing concepts of ethnicity and racial identification, the growth of religious movements, the effect of industrialization on family life, the impact of urbanization on crime and violence, and the influences of movies and television on mass behavior.

HST 334. Slavery and Sectionalism (3) Prerequisite: HST 201 and 202 or consent of the instructor. A study of slavery as an intellectual and political problem in the United States with special attention to abolitionism, sectional differences in the

1820-1861 period, and the impact of slavery on the war effort of both the Union and the Confederacy.

ST 335. Diplomatic History of the United States (3) Prerequisite: HST 201-202 or consent of instructor. American diplomatic activities and foreign relations since 1775.

ST 336. Constitutional History of the United States (3) Prerequisite: HST 201-202 or consent of instructor. Development of the Constitution through decisions of Supreme Court; evolution of federal authority in relation to distribution of governmental power, society and economic life.

ST 337. History of American Thought (3) Prerequisite: HST 201-202 or consent of instructor. American thought from the colonial period to the present with emphasis on those ideas having lasting influences on American institutions.

ST 339. Economic History of the United States (3) Prerequisite: HST 201-202 or consent of instructor. An historical study of American agriculture, labor, industry, transportation, and banking with emphasis on the relation of the government to the economy.

ST 341. North Carolina 1524 to 1835 (3) Prerequisite: HST 201-202 or consent of the instructor. Political, economics, and social development of North Carolina in the colonial federal period to the Constitution of 1835.

ST 342. North Carolina, 1835 to the Present (3) Prerequisite: HST 201-202 or consent of instructor. Political, economic, and social development of North Carolina in the nineteenth and twentieth centuries.

ST 346. The Old South (3) Prerequisite: HST 201-202 or consent of instructor. The South from the colonial period to the Civil War with emphasis on political, economic, and social institutions distinctive to the South.

ST 347. The New South (3) Prerequisite: HST 201-202 or consent of instructor. Aftermath of Reconstruction, rise of the New South, effects of industrialism, continuation and decline of sectionalism.

ST 351. History of Canada (3) Prerequisite: HST 101-102 or HST 201-202 or consent of instructor. A brief survey of Canada under the French; development under British control; evolution of the Dominion; relations with the United States and British Commonwealth of Nations.

ST 360. History of China (3) Prerequisite: Any two of the following: HST 101, 102 or 103; or consent of the instructor. Survey of the history of China: the evolution of characteristic Chinese institutions and modes of thought from antiquity to the present within a wider framework of political, economic and cultural change; Chinese responses to western imperialism in modern times; revolutionary transformation in modern contemporary China.

ST 361. History of Japan (3) Prerequisite: Any two of the following: HST 101, 102 or 103; or consent of instructor. Survey of Japanese history from the earliest recorded times to the present emphasizing Japan's development as a cultural daughter of

China; Japanization of Chinese culture and unique aspects of Japanese civilizatio the emergence of a modern economy and state economic bases of Japanes militarism-imperialism; developmental characteristics of Japanese capitalism.

HST 365. History of Modern East Asia (3) Prerequisite: HST 101-102 or consent c instructor. A survey of modern east Asian history from the mid-nineteenth cen tury to the present with emphasis on the Asian response to western imperialism institutional continuity and change, international relations, and movements towar independence and modernization. The course focuses on China, Japan and Kore with secondary attention to Southeast Asia in the post-World War II era.

HST 368. Latin American History (3) Prerequisite: An American or Western Civilizatio survey course or consent of instructor. The development of South America, Centra America, and the Caribbean from the time of the pre-Conquest civilizations to th present.

HST 371. History of Africa (3) Prerequisite: HST 101-102 or consent of instructor. His torical survey of African cultures with emphasis on the establishment of colonia empires, Africa under colonial rule, and modern African independence movements

HST 378. (GGY 378) Historic Preservation Planning (3) An applied research cours which ideals with the procedures employed by federal, state, and local ager cies in locating, recording, restoring, and preserving American architectural he itage and material cultural resources. Subjects examined include: survey,docu mentation, and planning; historic districts; adaptive use; funding; legislation; an organizational roles.

HST 380. Twentieth Century International Relations (3) Prerequisite: One of the fo lowing: HST 102, 103, 202, or consent of instructor. Historical analysis of the ma techniques, goals, and practitioners of international relations from World War I t the present, stressing shifts in the balance of power, ideological competition, all ance systems, international organizations, peace movements, and new methods c conflict resolution.

HST 403. (530) Medieval Civilization (3) Prerequisite: HST 101, 102 and completion c any university course work at the 300 level. A study of medieval institutions an culture with special emphasis on feudalism, manorialism, and the religious syste of the period.

HST 405. Political History of Middle Ages (3) Prerequisite: HST 101-102 or consent c instructor. A study of the political development of medieval Europe from the declin of the Roman Empire in West to the emergence of the modern period.

HST 407. (532) Europe in the Age of the Renaissance (3) Prerequisite: HST 101, 10 and completion of any university course work at the 300 level. Political, economi and social changes during the Renaissance, with special attention to the artistic an intellectual achievements of the age.

HST 409. (533) Europe in the Age of the Reformation (3) Prerequisite: HST 101, 10 and completion of any university course work at the 300 level. Causes and deve opment of the Protestant Revolution and the Catholic Reformation with examinatio

of the impact of these movements on the political, economic and social institutions of early modern Europe.

T 411. (534) Europe: From Monarchy to Revolution (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. Modern Europe from the rise of absolute kings in the seventeenth century to the defeat of the Emperor Napoleon. Emphasis is placed on the wars to gain control of Europe and colonial empire, the development of capitalist finance and a global economy, and the decline of aristocracy, climaxing in the French Revolution and the age of Napoleon.

T 413. (535) Europe: The Age of Industry and Empire (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. The origins and development of the industrial revolution in Europe; its effect on politics, population, urbanization and social class consciousness, the establishment of modern colonial empires in the nineteenth century and their place in the world economic order.

T 415. (536) Europe and the Struggle for World Mastery (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. The rivalry of Europe's great powers leading to World Wars I and II: the causes, events, and results of those global conflicts; the ensuing political revolutions in the inter-war period; anticipations of decline of the European empires; the spread of democracy and self-determination to certain areas; and European cultural and scientific development in the first half of the twentieth century.

T 417. (537) Europe Since 1945 (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. The revival of Europe after the Nazi period and its division by the Cold War; political, social, economic developments on both sides of the "Iron Curtain," decolonialization of Europe's empires; movements for political and economic integration; continuing revolutionary currents; Europe's place in contemporary world politics.

T 420. Great Britain 1815-1914: The Victorian Age (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. An examination of British society from the conclusion of the Napoleonic Wars to the outbreak of World War I. Major themes considered will include the impact of industrialization and urbanization; the gradual democratization of British politics; the cultural aspects of "Victorianism;" the foundations of British international power; the expansion of the British Empire.

T 431. (554) The Chinese Revolution (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. The Chinese Revolution from the May 4th Movement (1919) to the present. Special emphasis on the social and economic origins of the revolution, the history of the Communist Movement, the evolution of Mao Zedong's thought, and revolutionary developments in the People's Republic.

T 441. (510) Colonial History of the U.S. (3) Prerequisite: HST 201, 202 and completion of any university course work at the 300 level. Formation and growth of American colonies to the conclusion of the French and Indian War (1763).

T 443. (511) The American Revolution and Formation of the United States, 1763-1800 (3) Prerequisite: HST 201, 202 and completion of any university course work

at the 300 level. Organization of the British Empire, events preceding the Revolutio the war for independence, Confederation era, drafting and ratification of the U.S Constitution, politics of the new nation.

HST 445. (512) The Early United States Republic (3) Prerequisite: HST 201, 202 an completion of any university course work at the 300 level. Era from inauguration o Thomas Jefferson through Jacksonian democracy to the advent of the America Civil War.

HST 447. (513) The Civil War and Reconstruction (3) Prerequisite: HST 201, 202 an completion of any university course work at the 300 level. The American Civil Wa and Reconstruction of the South through 1877.

HST 449. (514) Robber Barons and Reformers, the U.S., 1877-1917 (3) Prerequisite HST 201, 202 and completion of any university course work at the 300 level. Th rise of American industry and the Populist-Progressive responses to urbanizatio and industrialization.

HST 451. (515) Twentieth Century America (3) Prerequisite: HST 201, 202 and comple tion of any university course work at the 300 level. A study of the United States fro 1917 to 1950 with emphasis upon World War I, the Roaring twenties, Depression an New Deal, World War II, and the origins of the Cold War.

HST 452. (516) America Since 1950 (3) Prerequisite: HST 201, 202 and completion o any university course work at the 300 level. Developments in American politics, cu tural life, civil rights and foreign policy from the time of the Truman administration t the present, including the Cold War, Korea, the Vietnam War, Watergate, the energ crisis, the nuclear arms race, feminism, and the "Me Decade."

HST 470. (570) Introduction to Applied History (3) Prerequisite: HST 201, 202 an completion of course work at the 300 level in history. A research seminar designe to acquaint students with the various sectors of applied history (government/pub lic policy, archives and information management, cultural resource managemen media and research organizations), and with the research methodologies peculia to the field. Field trips, guest speakers and a sponsored research methodologie peculiar to the field. Field trips, guest speakers and a sponsored research proje provide practical experience for participants.

HST 480. (517) Topics in Afro-American History (3) Prerequisite: HST 201, 202 an completion of any university course work at the 300 level. An intensive histor cal study of selected themes and events in the history of Afro-Americans fro the origins of the Atlantic slave trade to the present. Examples of specific topic are: Slavery in the Americas, Blacks and the American Military Tradition, Blac Folklore, the Harlem Renaissance and Biographies of Great Afro-American Lea ers.

HST 482. (576) Community Studies (3) Prerequisite: HST 201, 202 and completion o any university course work at the 300 level. Provides an introduction to the meth odological and practical application of community studies. Topics include: ora history, folklore, ethnography, museum and archival collection and managemen and historic preservation. Students will select a research project in cooperatio

with one of the local museums, historical societies, the public library or another governmental agency.

HST 490. Senior Seminar (3) Prerequisite : Senior standing. An exploration of historiography and the methodologies of historical research, with an emphasis on the writing history.

HST 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson. Students should have a 2.0 grade point average.

HST 495. Seminar (3) Prerequisite: HST 101, 102, or 201, 202 as appropriate or consent of instructor. Intensive study of historical topic not regularly covered in other courses.

HST 498. Internship in Applied History (3) Prerequisite: HST 101, 102, 201, 202, 377 and at least one other history course of relevant content. Academic training and practical field experience through work with a private historical agency in the three county area in and around Wilmington. Faculty supervision and evaluation of all study and on-site activity. Open to students of junior or senior standing who have been approved by the Advisory Committee for the Intern Program.

HST 499. Honors Work in History (2-3) Prerequisite: Senior standing. Consent of instructor or department chairperson. Individual study of honors students.

For 292 and 492; 294 and 494; see explanations on p. 82.

MARINE BIOLOGY

(See Biological Sciences)

MATHEMATICAL SCIENCES

Dr. D. Smith, *chairperson.* Dr. Adhar, Dr. Berman, Dr. Bianco, Dr. J. Brown, Mr. T. Brown, Dr. Chang, Dr. Dankel, Dr. DeSouza, Dr. Etheridge, Dr. Frierson, Dr. Greim, Dr. Gurganus, Ms. Hanson, Dr. Herbst, Dr. Kambule, Dr. Karlof, Dr. Kasala, Dr. Lugo, Mr. Lupton, Dr. McLaurin, Dr. Nelson, Dr. Norris, Dr. Sadek, Dr. Saksena, Dr. H. Smith, Dr. Spackman, Ms. Spike, Ms. Wager, Dr. Whipkey, Dr. Worsey, Dr. Yan.

Requirements for a Concentration in Computer Sciences for the B.S. degree: Core Requirements: CSC 121, 122, 231, 241, 242, 332, 334, 360; MAT 161, 162, 335; STT 262, 362. In addition to the core requirements there are three options below, one of which a student must complete in order to fulfill the degree requirements. With careful planning and advising, a student may complete a second major in an area of application.

Option 1.

This option is designed for students interested in applications of computer science to the mathematical or physical sciences.

CSC 325, 425, 460; MAT 261, 361; PHY 201, 202; and two courses selected from CSC 420, MAT 435, 436, 461, 462, 471, and MAT/STT 465.

Option 2.

This option emphasizes the study of computers as systems. Students selecting this option are prepared for careers involving systems analysis or systems integration, or for graduate studies in computer sciences.

CSC 325 or MAT 361; CSC 342, 410, 442, 460; MAT 261; MAT 336 or 375; PHY 201, 202.

Option 3.

This option is designed for students who intend to use the computer as a tool for industrial or business and information systems applications.

CSC 455; six additional hours at the 300 or 400 level in Computer Science, Mathematics or Statistics, approved by the advisor; ACG 201, 203; ECN 221, 222; FIN 335; MGT 350; MKT 340; PDS 314.

A grade of "C" or better must be earned on each required computer science course; a quality point average of (C) 2.0 or better must be earned on all other courses required for the concentration.

Note: Students interested in the degree program in computer science are encouraged to begin their mathematics study with Calculus I (MAT 161). Initial placement in mathematics is based on high school background and the Mathematics Placement Test. Students not prepared for calculus in their first semester should begin with MAT 115 or 111-112, as appropriate. Students who place into MAT 162 are advised to take the Advanced Placement Test to receive college credit for MAT 161.

Computer Science Course Descriptions

(Department of Mathematical Sciences)

CSC 105. Survey of Computer Applications (2) An introduction to data processing for non-majors with an emphasis on understanding capabilities without engineering or programming skill. History and structure of computer systems. Concepts of simulation, operational control, information management, and time-sharing with related terminology. Types of errors in computer based systems. Social implications of the future potential of computer technology. Practice with using programs in the university library.

CSC 107. Programming Laboratory - SNOBOL (1) Prerequisite: CSC 105 or consent of instructor. Elementary programming techniques for character-string processing and text editing. Emphasis will be placed on the pattern matching facilities of SNOBOL. Two hours each week.

CSC 111. Introduction to Computer Programming Using FORTRAN (3) Prerequisite or corequisite: MAT 111 or 115. Algorithms and computer systems, data representation, survey of computer applications, elementary programming techniques in FORTRAN, debugging and verification of programs. Two lecture and two laboratory hours each week.

CSC 121. Introduction to Computer Science I (3) Prerequisite: MAT 111 or 115, or equivalent. Problem solving methods and algorithms in a modern high-level programming language. Introduces one or more programming environments. Emphasis on programming style and the design, coding, and testing of complete programs. A grade of "C" or better is required for taking any course for which CSC 121 is prerequisite. Three lecture and one laboratory hour each week.

SC 122. Introduction to Computer Science II (3) Prerequisite: CSC 121. Continuation of CSC 121 with emphasis on character and string processing, elementary data structures, computer graphics, recursion, and use of software tools. A grade of "C" or better is required for taking any course for which CSC 122 is prerequisite. Three lecture and one laboratory hour each week.

SC 125. Computer Language - FORTRAN (2) Prerequisite: CSC 121. Elementary and intermediate programming techniques in FORTRAN. Computer solution to numeric problems. No credit after completion of CSC 111.

SC 126. Computer Language - PL/1 (2) Prerequisite: CSC 111 or 121. Elementary and Intermediate programming techniques in PL/1. Computer solution to numeric problems and non-numeric problems.

SC 127. Computer Language - COBOL (2) Prerequisite: CSC 111 or 121. Elementary and intermediate programming techniques in COBOL. Computer solution to business oriented problems.

SC 128. Interactive Personal Computing (2) Prerequisite: CSC 111 or 121. Elementary programming techniques using interactive services. The use of personal computers.

SC 207. Language Processing (3) Prerequisite: CSC 107. The role of computers as tools in linguistic studies; literary applications of computing: verbal indexes, concordances, authorship controversies; computational linguistics; algorithms for manipulating character strings using the SNOBOL programming language.

SC 231. (MAT 231) Discrete Structures (3) Corequisite: CSC 121. Introduction to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary graph theory and applications to computer science.

SC 241. Introduction to Computer Systems & Assembly Languages (3) Prerequisite: CSC 121. Introduction to computer structure. Registers, machine instructions and formats; number and character representation; execution control and addressing techniques. Basic input-output programming; files; procedures, segmentation, and linkage, recursion and re-entrancy; floating-point and string operations. Symbolic and machine-level debugging.

SC 242. Digital Logic and Computer Organization (3) Prerequisite: CSC 231 and 241. Study of computer system organization. Combinational and sequential circuit analysis and synthesis; medium and large-scale integrated circuits. Register-transfer language and microprogramming; instruction fetch and execution; flow of control. Input-output, controllers, interrupts, communications and codes. Introduction to computer networks.

SC 305. Computer Graphics (3) Prerequisite: CSC 121 and MAT 261. Display memory generation of points, vectors, etc. Digitizing and digital storage. Pattern recognition by features, syntax tables, random nets, etc. Data structures and graphics software. The mathematics of three dimensions, projections, and the hidden-line problem. "Graphical programs," computer-aided design and instruction, and animated movies.

CSC 325. (MAT 325) Numerical Algorithms (3) Prerequisite: CSC 111 or 121, MAT 162. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized.

CSC 332. Data Structures (3) Prerequisite: CSC 122 and 231. Study of basic data structures and their applications. Lists and trees; graph algorithms; internal and external sort and search techniques; hashing; analysis and design of efficient algorithms; file processing techniques.

CSC 334. Programming Languages (3) Prerequisite: CSC 332. Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures.

CSC 342. Operating Systems (3) Prerequisite: CSC 242 and 334. Study of supervisory programs. System services and file systems; CPU scheduling; memory management; virtual memory; disk scheduling. Deadlock characterization, prevention, and avoidance; concurrent processes; semaphores; critical sections; synchronization. Distributed systems and communication protocols.

CSC 350. Computer Components and Circuits (3) Prerequisite: MAT 162 and PHY 202. Introduction to the basic elements of electricity, electronics, and semi-conductor device theory as applied to computer components. Voltage, current, Ohms's law; capacitance, inductance, reactance, impedance, and analysis of AC circuits; transmission lines; transistors, flip-flops, and smallscale integrated circuits; medium and large-scale integrated circuits and the microprocessor.

CSC 360. Formal Languages and Computability I (3) Prerequisite :CSC 332. An introduction to theoretical computer science. Topics include regular expression and finite state concepts; basic automata theory; formal grammars and languages; computability; Turing machines; elementary recursive function theory.

CSC 365. Switching Theory (3) Prerequisite: CSC 231. Switching algebra, gate network analysis and synthesis, Boolean algebra, combinational circuit minimization, sequential circuit analysis and synthesis, sequential circuit state minimization, hazards and races, and elementary number systems and codes.

CSC 410. Compiler Construction (3) Prerequisite: CSC 360. Review of program language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design. Use of compiler writing languages and bootstrapping.

SC 420. Simulation Techniques (3) Prerequisite: CSC 231 and STT 362. Introduction to simulation and comparison with other techniques. Discrete simulation models, and introduction to, or review of, queueing theory and stochastic processes. Comparison of discrete change simulation languages. Simulation methodology including generation of random numbers and variates, design of simulation experiments for optimization, analysis of data generated by simulation experiments, and validation of simulation models and results. Selected applications of simulation.

SC 425. (525; Mathematics 425/525) Numerical Analysis (3) Prerequisite: MAT 325, 335 and 361. Introduction to the theoretical foundations of numerical algorithms. Solution of linear systems by direct methods, least squares, minimax, and spline approximations; polynomial interpolation; numerical integration and differentiation; solution of non-linear equations; initial value problems in ordinary differential equations. Error analysis. Certain algorithms are selected for programming.

SC 432. Advanced Data Structures (3) Prerequisite: CSC 332 and MAT 335. Advanced topics in data structures, with emphasis on algorithmic complexity. Recursive list manipulations; paradigms of search; biconnectivity, strong connectivity, and precedence relations in graphs; pattern matching; search trees; file structures; optimal techniques for sorting, merging, and selection.

SC 442. Advanced Computer Organization (3) Prerequisite: CSC 342. Advanced topics in computer organization and architecture. Readings from the literature contrasting alternative organization schemes as they affect systems development. Seminar format.

SC 450. Software Engineering (3) Prerequisite: CSC 332. Study of the design and production of large and small software systems. Topics include systems engineering, software life-cycle and characterization; use of software tools.

SC 455. Data Base Management Systems (3) Prerequisite: CSC 332. Introduction to data base concepts, data independence, logical and physical views of data base systems. Data models: hierarchial, network, and relational. Data description languages, query functions, relational algebra.

SC 460. Formal Languages and Computability II (3) Prerequisite: CSC 360. Advanced topics in theoretical computer science. Theory of computation; languages and syntactic analysis; computational complexity and NP -completeness.

SC 475. Topics in Computer Science (3) Prerequisite: Senior standing and permission of instructor. Topics of current interest in computer science not covered in existing courses.

SC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

SC 495. Seminar in Computer Science (1) Prerequisite: Junior or senior standing and consent of instructor.

CSC 499. Honors Work in Computer Science (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492; 294 and 494, see explanation on p. 82.

Requirements for Concentration in Mathematics: Core requirements: MAT 161-162 261, 275, 335, 336, 375, and either 366 or 411; CSC 121; STT 262-362; PHY 201-202; and at least nine hours at the 300 or 400 level approved by the advisor in an area related to mathematics. In addition to the core requirements there are three options listed below, one of which a student must complete to fulfill the degree requirements.

I. B.A. degree teacher certification in Mathematics: MAT 345, 346. The education and psychology courses required for teacher certification satisfy the core requirements of at least nine hours at the 300 or 400 level in an area related to mathematics.

II. B.A. degree in Mathematics: Nine additional hours of mathematics courses at the 300 or 400 level approved by the advisor.

III. B.S. degree in Mathematics: MAT 361, one of MAT 367, 411 (if not used for the core requirement), 412 or 415, 495; a mathematical modeling course, and six additional hours of mathematics or statistics courses at the 300 or 400 level approved by the advisor. The modeling requirement may be fulfilled by taking any of: MAT 419, 436 or MAT/STT 465. (Note: Some of these courses require additional prerequisites.)

A "C" (2.0) or better average is required for mathematics courses at the 300-400 level.

Note 1. Collateral courses required in the three programs in mathematics must be chosen from departmentally approved courses which, together with the student's mathematics courses, comprise a coherent program. Normally a proposed program of study should be submitted to the department for approval prior to the beginning of the student's junior year.

Note 2. Students interested in a degree program in mathematics are encouraged to begin their mathematics study with Calculus I (MAT 161). Initial placement in mathematics is based on high school background and the Mathematics Placement Test. Students not prepared for calculus in their first semester should begin with MAT 115 or 111-112, as appropriate. Students who place into MAT 162 are advised to take the Advanced Placement Test to receive college credit for MAT 161.

Mathematics Course Descriptions

(Department of Mathematical Sciences)

In general, mathematics is sequential in nature. Therefore, successful mastery of each course in sequence is necessary in order to be adequately prepared for the next course. In light of this, it is strongly recommended that students obtain a grade of at least "C" before registering for the next course in a sequence. With special permission a student can repeat a course in which a "D" grade is obtained. Sequences offered where this guideline is applicable are MAT 111-112, MAT 111-151, MAT 111-112-151-152, MAT 115-151-152, MAT 111-112-161-162-261, MAT 115-161-162-261.

AT 100. Foundations of Algebra (0) Designed primarily for students not prepared for MAT 111 who need additional manipulative skills, particularly in algebra. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

AT 101-102. College Mathematics for The General Student (3,3) A survey of mathematical ways of thinking designed for the general student. Not intended as preparation for further mathematics courses. Cannot be substituted for MAT 111, 112, or 115. Emphasis on concepts and applications rather than on manipulative skills. Introduces logic, number systems, algebra, geometry, probability, statistics, computers, calculus and the history of mathematics. No credit granted after the completion, with a grade of "C" or better, of a mathematics course numbered 141 or higher.

AT 111. Precalculus I (3) Prerequisite: Satisfactory performance on the UNCW mathematics placement test. A preparatory course for further mathematics courses. Equations and inequalities; polynomial, exponential and logarithmic functions; graphs; systems of equations and inequalities. No credit granted after the completion, with a grade of "C" or better, of MAT 115 or mathematics course numbered 151 or higher.

AT 112. Precalculus II (3) Prerequisite: MAT 111 or equivalent or satisfactory performance on the UNCW mathematics placement test. Topics from trigonometry and algebra. Includes trigonometric functions, identities and equations; zeros of polynomials, mathematical induction; sequences. No credit granted after the completion, with a grade of "C" or better, of MAT 115 or a mathematics course numbered 152 or higher.

AT 115. Elementary Mathematical Analysis (3) Prerequisite: Satisfactory performance on the UNCW mathematics placement test. (This is usually equivalent to an SAT score above 500 in math, and at least a "B" average in algebra I and II, geometry, advanced algebra and trigonometry.) A one-semester treatment of the topics listed under MAT 111 and MAT 112. No credit granted after the completion, with a grade of "C" or better of MAT 111, MAT 112, or a mathematics course numbered 151 or higher.

AT 141-142. Basic Concepts of Mathematics (3-3) Real number system and related operations, units of measurement, graphs and data analysis, geometry, logic and sets, and introduction to calculators and computers.

AT 151-152. Basic Calculus with Applications (3-3) Prerequisite: MAT 111 or 115 for 151; MAT 112 or 115 and 151 for 152. Differentiation and integration of algebraic and certain transcendental functions, partial differentiation, sequences and series. Greater emphasis is placed on techniques and applications than on theory and derivations. This sequence is not intended for students who need mathematics beyond calculus.

AT 161-162. Calculus with Analytic Geometry (4-4) Prerequisite: MAT 112 or 115 or equivalent preparation in algebra and trigonometry. Treatment of calculus of a single variable intended for students in the mathematical and natural sciences. Functions and limits; differentiation with applications including maxima and minima,

related rates, differentials and approximations; theory of integration with applications; equations of curves including the conic sections; transcendental functions infinite sequences and series. Three lecture and two hour laboratory hours each week.

MAT 231. (CSC 231) Discrete Structures (3) Corequisite: CSC 121. Introduction to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary minimization; relations; principles of recursion and induction; elementary graph theory and applications to computer science.

MAT 261. Multivariate Calculus (4) Prerequisite: MAT 162. Calculus of functions of several variables. Polar coordinates and parametric equations, solid analytic geometry partial derivatives, multiple integrals. Three hours lecture and two hours laboratory each week.

MAT 275. Axiomatic Systems (3) Prerequisite: MAT 161. An introductory treatment of propositional and predicate logic and methods of proof. Elementary set theory relations, functions and topics from axiomatic systems. Precision in the use of mathematics as a language and rigor in proofs are emphasized. Students present and discuss appropriate material to gain experience in communicating mathematics.

MAT 325. (CSC 325) Numerical Algorithms (3) Prerequisite: CSC 111 or 121, MAT 162 An introduction to the numerical algorithms fundamental to scientific computer work Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of non-linear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized.

MAT 335. Linear Algebra and Matrices (3) Prerequisite: MAT 162. Systems of linear equations, vector spaces, algebra of matrices and linear transformations, determinants applications.

MAT 336. Modern Algebra (3) Prerequisite: MAT 275, 335 or consent of instructor. Equivalence relations; groups, subgroups, normal subgroups, quotient groups; rings, subrings, ideals, quotient rings; rings of integers, fields of rational, real and complex numbers, polynomial rings.

MAT 345. Modern College Geometry (3) Prerequisite: MAT 275 or consent of instructor. Use of elementary methods in advanced study of the triangle and circle, special emphasis on solving original examples, comparison of Euclidean and non-Euclidean and projective geometries.

MAT 346. Historical Development of Mathematics (3) Corequisite: MAT 275 or consent of instructor. Development of mathematics from earliest systems to present century Personalities involved with the contributions of each. A problem-study approach to give the student some training in research.

MAT 361. Differential Equations (3) Prerequisite: MAT 261. Theory , methods of solution and applications of ordinary differential equations with emphasis on first order equations and linear equations. Additional topics from power series solutions, Laplace transforms, linear systems, and numerical methods.

AT 366. Advanced Calculus I (3) Prerequisite: MAT 261; corequisite: MAT 335. A thorough study of differential and integral calculus of vector-valued functions of a vector variable. Jacobians, inverse and implicit function theorems, change of variables in multiple integrals; theorems of Green, Gauss, and Stokes; applications.

AT 367. Advanced Calculus II (3) Prerequisite: MAT 366. Further topics in analysis and their applications. Infinite series, power series, uniform convergence; Fourier series and orthogonal functions; Fourier and Laplace transforms; elementary applications to differential equations and boundary value problems. Introduction to complex variables and residue theory.

AT 375. Combinatorics (3) Prerequisite: STT 262 and either MAT 275 or CSC/MAT 231. Techniques for counting configurations of objects. Recurrence relations; principle of inclusion-exclusion; graphs, trees, and circuits. Additional topics chosen from Polya's Theorem, generating functions, and network flows.

AT 411-412. (511-512) Real Analysis (3-3) Prerequisite: MAT 261, 275, and 335. Advanced study of convergence, continuity, differentiation, and integration in Euclidean space. The real number system, basic topology of Euclidean spaces; sequences and series; continuity, differentiation of vector-valued functions, uniform continuity; theory of integration; implicit and inverse function theorems, Stokes' Theorem.

AT 415. (515) Introduction to Complex Variables (3) Prerequisite: MAT 367 or 411. A first study of functions of a complex variable. Algebra of complex numbers, elementary functions with their mapping properties; analytic functions; power series; integration, Cauchy's Theorem, Laurent series and residue calculus; elementary conformal mappings and boundary value problems.

AT 418-419. Applied Analytical Methods (3-3) Prerequisite: MAT 361 and 367. A thorough treatment of the solution of initial and boundary value problems of partial differential equations. Topics include classification of partial differential equations, the method of characteristics, separation of variables, Fourier analysis, integral equations and integral transforms, generalized functions, Green's functions, Sturm-Liouville theory, approximations, numerical methods.

AT 421. (521) Number Theory I (3) Prerequisite: MAT 336. Use of algebraic techniques to study arithmetic properties of the integers and their generalizations. Primes, divisibility and unique factorization in integral domains; congruences, residues and quadratic reciprocity; diophantine equations and additional topics in algebraic number theory.

AT 425. (525; CSC 425/525) Numerical Analysis (3) Prerequisite: MAT 325, 335, and 361. Introduction to the theoretical foundations of numerical algorithms. Solution of linear systems by direct methods; least squares, minimax, and spline approximation; polynomial interpolation; numerical integration; and differentiation; solution of nonlinear equations; initial value problems in ordinary differential equations. Error analysis. Certain algorithms are selected for programming.

AT 435. (535) Linear Programming (3) Prerequisite: CSC 111 or 121 and MAT 335. Methods and applications of optimizing a linear function subject to linear constraints.

Theory of the simplex method and duality; parametric linear programs; sensitivit analysis; modeling and computer implementation.

MAT 436. (536) Discrete Optimization (3) Prerequisite: MAT 435. Theory and applica tions of discrete optimization algorithms. Transportation problems and network flo problems; integer programming; computer implementation.

MAT 451. (551) Topology I (3) Prerequisite: MAT 275 and 336. A study of the basic cor cepts of general topology. Metric spaces, continuity, completeness, compactness connectedness, separation axioms, product and quotient spaces; additional topic in point-set topology.

MAT 457. (557) Differential Geometry (3) Prerequisite: MAT 366 or 411. Theory of curve and surfaces in Euclidean space. Frenet formulas, curvature and torsion, arc length first and second fundamental forms, Gaussian curvature, equations of Gauss an Codazzi, differential forms, Cartan's equations; global theorems.

MAT 463. (563) Ordinary Differential Equations (3) Prerequisite: MAT 335 and 36 Advanced study of ordinary differential equations. Existence and uniqueness; sys tems of linear equations, fundamental matrices, matrix exponential; series solution regular singular points; plane autonomous systems, stability and perturbation theor Sturm-Liouville theory and expansion in eigenfunctions.

MAT 465. (565; STT 465/565) Applied Probability (3) MAT 261 and STT 362. Th formulation, analysis and interpretation of probablistic models. Selected topics probability theory. Conditioning, Markov chains, and Poisson processes. Addition topics chosen from renewal theory, queuing theory, Gaussian processes, Brownia motion, and elementary stochastic differential equations.

MAT 471. Projects in Mathematical Modeling (3) Prerequisite: Either CSC 420 or MA 435 or 461, or MAT/STT 465. Techniques of problem recognition and formulatio and mathematical solution and interpretation of results. Each student will constru a mathematical model under the supervision of the Applied Mathematics Adviso Committee and report on the investigation in written and oral form. Seminar format

MAT 475. Topics in Mathematics (3) Prerequisite: Junior or senior standing and permi sion of instructor. Topics of current interest in mathematics not covered in existin courses.

MAT 481. (581) Introduction to Mathematical Logic (3) Prerequisite: MAT 275 an 336. The formal study of truth and provability. Propositional calculus; predica calculus. Gödel's completeness theorem, applications to formal number theo and incompleteness. Additional topics chosen from areas such as undecidabili or nonstandard analysis.

MAT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, conse of the department chairperson, a "B" or better average on all mathematics course taken.

MAT 495. Seminar in Mathematics (1-3) Prerequisite: Junior or senior standing an consent of instructor. Investigation of and an oral report on a mathematical top

under the direction of a faculty member. Within the first four weeks of the semester enrolled, the student must submit an outline of the proposed work to the Mathematics Advisory Committee for approval.

IAT 499. Honors Work in Mathematics (2-3) Prerequisite: Eligibility for honors program. Individual study for honor students.

or 292 and 492; 294 and 494, see explanations on p. 82.

Statistics Course Descriptions

(Department of Mathematical Sciences)

TT 205. Introduction to Statistics with Applications in the Social Sciences (3) Prerequisite: MAT 101, 111, or 115. (Designed for student majoring in the social sciences.) Graphical and numerical methods for univariate data; bivariate data organization and measures of association; contingency table analysis; sampling distributions; estimation and hypothesis testing; introduction to linear regression and correlation.

TTL 205-51. Statistics Laboratory (1) Prerequisite or corequisite: STT 205 or consent of instructor. Computers are used to illustrate the descriptive and inferential methods of STT 205 and 215. Emphasis is on the use of existing statistical packages. No computer programming knowledge is required. Two hours each week.

TT 210. Introduction to Statistics with Applications in the Health Sciences (3) Prerequisite: MAT 111. Collection, tabulation and graphical representation of data. Measures of location and variation, measures of association and chi-squared distribution, correlation and regression, binomial, Poisson and normal distributions, estimation and tests of hypotheses. Health care statistics, elementary computer skills in analysis of data and interpretation of computer printout.

TT 215. Introduction to Statistics with Application in the Natural Sciences (3) Prerequisite: MAT 111 or 115. (Designed for students majoring in the natural sciences.) Graphical and numerical descriptive methods; random variables and probability distributions; estimation and hypothesis testing (large and small samples); linear regression and correlation; one-way analysis of variance; contingency tables and goodness of fit.

TTL 215-51. Statistics Laboratory (1) Prerequisite or corequisite: STT 215 or consent of instructor. Computers are used to illustrate the descriptive and inferential methods of STT 205 and 215. Emphasis is on the use of existing statistical packages. No computer programming knowledge is required. Two hours each week.

TT 250. Introduction to Sampling Techniques (3) Prerequisite: Any introductory statistics course such as STT 205, 210, 215, PDS 217, or PSY 225. An introduction to sampling techniques intended for students in the social, behavioral, natural or health sciences. Simple random sampling, stratified random sampling, cluster sampling, and ratio and regression estimation.

STT 262. Discrete Probability and Random Variables (2) Prerequisite: MAT 151 c 161. An introduction to random variables and probability distributions in the dis crete case. Topics include descriptive statistics; elementary combinatorics; discret sample spaces and probability; mathematical expection; Tchebyshev's Theorem conditional probability and independence; Bayes' Theorem; joint, conditional an marginal distributions; common discrete probability models. Introduction to contin ous random variables.

STT 362. Continuous Probability and Statistics (2) Prerequisite: STT 262 and MAT 15 or 162. Continuous random variables and their distributions. Topics include function of random variables; estimation and tests of hypotheses; regression and correlatio least square curve fitting.

STT 411. (511) Design of Experiments and Analysis of Variance (3) Prerequisite: An elementary statistics course. Review of elementary statistics; design of experiment including completely randomized, randomized block, factorial, split-plot, an repeated measures designs; analysis of variance; non-parametric alternativ methods of analysis. Statistical software packages will be used as appropriat in problem solving.

STT 412. (512) Applied Regression and Correlation (3) Prerequisite: Any elementar statistics course. Review of elementary statistics; linear and multiple regressio correlation. Statistical software packages will be used as appropriate in proble solving.

STT 430. (530) Introduction to Non-Parametric Statistics (3) Prerequisite: STT 362 Theory and methods of non-parametric statistics in the one-and two- sampl problems and their comparisons with standard parametric procedures. Non parametric tests for comparing more than two samples; tests of randomness an independence.

STT 440. (540) Linear Models and Regression Analysis (3) Prerequisite: MAT 261 an 335 and STT 362. Theoretical introduction to the general linear model and its app cation to simple linear regression and multiple regression. Estimation and hypothes testing of model coefficients; residual analysis; analysis of covariance.

STT 465. (565; MAT 465/565) Applied Probability (3) Prerequisite: MAT 261 and ST 362. The formulation, analysis and interpretation of probabilistic models. Selecte topics in probability theory. Conditioning, Markov chains, and Poisson processe Additional topics chosen from renewal theory, queuing theory, Gaussian processe Brownian motion, and elementary stochastic differential equations.

STT 466-467. (566-567) Mathematical Statistics (3-3) Prerequisite: MAT 261 and ST 362. A rigorous introduction to mathematical statistics. Univariate and multivaria probability distributions; conditional and marginal distributions; theory of estimatio and hypothesis testing; limiting distributions and the central limit theorem; sufficie statistics and the exponential class of probability density functions.

STT 475. Topics in Statistics (3) Prerequisite: Senior standing or permission of instru tor. Topics of current interest in statistics not covered in existing courses.

STT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of the department chairperson, and a "B" or better average on all mathematical sciences courses taken.

STT 499. Honors Work in Statistics (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492; 294 and 494, see explanation on page 82.

MILITARY SCIENCE (ARMY ROTC)

(Department of Military Science)

Lieutenant Colonel Hanna, *chairperson*. Major Frasure, Captain Mahood, Captain Montgomery, Captain Pominville.

The Army Reserve Officers' Training Corps at The University of North Carolina at Wilmington provides men and women, who meet the physical and mental requirements, the opportunity to become officers in the U.S. Army on active duty or in the Army National Guard or U.S. Army Reserve. Students pursue their degree in the academic curriculum of their choice while completing the ROTC program of study. When students are awarded their academic degree, they are commissioned as an Army officer. Students interested in commissions in the U.S. Navy, U.S. Air Force, or the Marine Corps should contact the chairperson, Department of Military Science, for information on those services.

All students including transfer and graduate students are eligible. All college disciplines are supported by the ROTC program. Students may enter the program at almost any time during their study at UNCW. The four programs offered include the Scholarship Program, the Four-Year and Two-Year programs, and the Simultaneous Membership Program with the Army National Guard or Reserves.

The Basic Course

MLS 101. Basic Military Skills I (1) An introduction to first aid, rappelling, self defense, drill and ceremonies, customs of the service and the organization of the Army. One lecture hour and one laboratory hour each week.

MLS 102. Basic Military Skills II (1) Marksmanship, survival skills, water operations, rope bridges and leadership. Skills are practiced in an outdoor environment. One lecture hour and one laboratory hour each week.

MLS 103. (PED 102) Fundamentals of Hiking Climbing and Rappelling (1) Introduction to basic concepts, skills and techniques for outdoor travel. Emphasizes outdoor planning and preparation; effects of exposure on the human body, personal hygiene and foot care; aspects of team work; crossing obstacles; technical climbing; and rappelling.

MLS 103. (PED 102) Basic Orienteering (1) Introduction to basic cross-country navigating using a topographic map, compass, and terrain identification in order to negotiate various orienteering courses. Administering orienteering recreational programs.

MLS 103. (PED 102) Rifle Marksmanship (1) Introduction to basic principles and techniques of rifle marksmanship. Stresses familiarization in conducting rifle range exercises and provides an introduction to olympic style rifle team competition.

MLS 201. Small Unit leadership I (1) Introduction to small unit leadership, physical readiness training, characteristics and employment of US Infantry weapons. Also includes unit on hot and cold weather injury prevention and the conduct of inspections. One lecture hour and one laboratory hour each week.

MLS 202. Small Unit Leadership II (1) Basic map reading, day and night land navigation and orienteering in an outdoor environment. Introduction to the principles of war. One lecture hour and one laboratory hour each week.

MLS 211. Basic Camp (4) Pass a physical fitness examination. Six week camp held at Ft. Knox, Kentucky, which is used to satisfy basic course prerequisite for enrollment into Advanced ROTC. Emphasis is on physical fitness, marksmanship, leadership training, tactical training of the individual soldier, first aid, and the purpose and function of nuclear, biological, and chemical warfare equipment. Dismounted drill, military courtesy, and the wearing of the Army uniform are also examined.

The Advanced Course

Prerequisite: One of the following: Three years of JROTC, a veteran with a favorable reenlistment code, completion of the Basic Course or MLS 211, or the National Guard or Army Reservist Junior who has finished basic training. Students must maintain a 2.0 grade point average, pass a physical examination and be a US citizen.

MLS 301. Advanced Military Skills (3) Land navigation, terrain analysis, NBC defense, communications procedure, first-aid, combat intelligence. Includes an overview of the Soviet Army and a discussion of the role of the NCO in the US Army. Three hours lecture and one laboratory hour each week.

MLS 302. Small Unit Tactics (3) Prerequisite: MLS 301 or approval of chairperson. A continuation of MLS 301, designed to provide the student with practical military skills including military symbols, squad and platoon tactics and a review of communications, weapons, and first-aid. Three hours lecture and one laboratory hour each week.

MLS 311. Advanced Camp (0) Prerequisite: MLS 301 and 302 or approval of chairperson. Six week camp at Ft. Bragg, North Carolina. Advanced leadership techniques, squad and platoon tactics, tactical training of the individual soldier, land navigation, physical fitness, first aid and NBC skills. In addition, students will be evaluated on their performance as potential junior officers throughout the camp.

MLS 401. Staff and Management (3) Prerequisite: MLS 301, 302, or approval of chairperson. A study of the organization and functions of the military staff, i.e., the commander, the personnel officer, the intelligence officer, the operations officer and the supply officer. Students prepare training schedules and present instruction to basic course cadets during leadership laboratory. Three hours lecture and one laboratory hour each week.

MLS 402. Military Justice (3) Prerequisite: MLS 401, or approval of chairperson. Advanced military subjects to include the military system of justice; also includes counseling techniques, unit administration, and methods of written and oral communications. Three hours lecture and one laboratory hour each week.

Military science students enrolled in the advanced course must complete a variety of academic courses to enhance their professional military education. Students must complete one course in each of six fields of study:

1. Written Communication Skills
2. Human Behavior
3. Math Reasoning
4. Computer Literacy
5. Military History
6. Military Ethics

The first four of the above can be satisfied through the university Basic Studies program. Numbers five and six can be satisfied by taking HST 300 and P&R 217, respectively. Substitutions for HST 300 or P&R 217 must be approved by the chairperson of the Department of Military Science. Only 13 credit hours of MLS courses may count toward graduation.

PHILOSOPHY AND RELIGION

Dr. Megivern, *chairperson.* Dr. Altrichter, Dr. Amon, Dr. Conser, Dr. Gauthier, Dr. Habibi, Dr. McGowan, Dr. Schmid, Dr. Shinn, Dr. Turrisi, Dr. Wilson.

Requirements for a Concentration in Philosophy and Religion for the B.A. degree:

I. B.A. degree with emphasis in Philosophy: P&R 101, 103, 110, 115, 201, 202, 400, and 15 additional hours including at least nine at the 300-400 level.

II. B.A. degree with emphasis in Religion: P&R 101, 103, 110, 125, 230, 232, 400; two courses from 235, 236, 238, 240, 245, 246, 247, or 248; and nine additional hours at the 300-400 level.

Philosophy Course Descriptions

(Department of Philosophy and Religion)

P&R 101. Invitation to Philosophical Thinking (3) An introduction to various philosophers and philosophical problems from historical, critical, and other perspectives.

P&R 110. Introduction to Logic (3) Introduction to the principles of logic including the rules of deduction, the categorical syllogism, induction, and fallacies. Initiation in computer logic programs.

P&R 115. Introduction to Ethics (3) An introduction to fundamental principles, theories, and problems in ethics.

P&R 201. History of Western Philosophy I (3) A survey of Western philosophical thought in ancient and medieval times. Emphasis on the Greek origins of the philosophical tradition. Readings from the Pre-Socratics, Plato, Aristotle, Roman philosophy and such Christian thinkers as Augustine and Thomas Aquinas.

P&R 202. History of Western Philosophy II (3) A survey of Western philosophical thought from the beginning of the modern era to the present. Emphasis on the rationalist and empiricist traditions. Readings from such philosophers as Descartes, Spinoza, Locke, Hume, Kant and Russell.

P&R 205. American Philosophy (3) A survey of American Philosophical thought from colonial times to the present. Readings from such American thinkers as Jonathan Edwards, the Federalist authors, Thoreau, James, Dewey and Quine.

P&R 211. Philosophy of Human Nature (3) An effort to clarify the meanings of man as he presents himself in our contemporary world; oriented toward a theory of education and of psychology.

P&R 213. Existentialism (3) An introduction to major themes in existential thought such as freedom, authenticity, death of God, the meaning of life. Primary source readings from existential authors, e.g., Kierkegaard, Nietzsche, Heidegger, Sartre, Marcel.

P&R 215. Bioethics (3) Examination of the principles and problems in the application of ethical theory to medical and research practice.

P&R 216. Business Ethics (3) An examination of the principles and problems in the application of ethical theory to administrative and management practice.

P&R 217. Military Ethics (3) An examination of the application of ethical theory to the military profession and the practice of war.

P&R 218. Symbolic Logic (3) Fundamentals of an axiomatic logical system, including both the propositional calculus and the predicate calculus, consistency and completeness proofs, and mathematical induction.

P&R 220. Philosophy & Science Fiction (3) A survey of the major philosophical themes explored in contemporary science fiction. Topics covered will include the nature and limits of science and technology, human nature, and the viability of alternative political arrangements. The emphasis will be on learning to identify the philosophical themes that underlie much of contemporary science fiction and to use these to develop a better understanding of the modern world. Readings will include both fiction and contemporary philosophy.

P&R 302. Plato (3) Prerequisite: P&R 101 or 201. Study of the Dialogues of Plato. Analysis of texts; contemporary interpretations.

P&R 303. Aristotle (3) Prerequisite: P&R 101 or 201. An examination of Aristotle's philosophy through selected texts, supplemented with contemporary criticisms. Aristotle's criticisms of Plato; problems of interpretation.

&R 305. Medieval Philosophy (3) A survey of Islamic, Jewish and Christian philosophical thought in medieval times. Readings from such thinkers as Augustine, Avicenna, Averroes, Maimonides and Thomas Aquinas.

&R 310. (PLS 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or the consent of instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include: natural law; historical, analytical and sociological jurisprudence; idealism, utilitarianism and legal realism; equity, justice, precedent, custom and law, and the relation of law and morality.

&R 313. Social and Political Philosophy (3) Prerequisite: P&R 101, 115, or consent of instructor. An exploration of philosophical issues and concepts central to an understanding of social and political life; e.g., function and cause, justice, liberty, equality, societal facts and laws, utopias, reason and political argument, political obligation and the public interest.

&R 316. The Philosophy of Art (3) Prerequisite: P&R 101 or consent of instructor. Investigation and exploration into both traditional and contemporary theories regarding the philosophy of art and its associated problems. Visual Arts, such as painting, sculpture, film, etc., will be examined.

&R 317. Epistemology (3) Prerequisite: P&R 101 or 201-202. Fundamental issues in theory of knowledge: nature of knowledge; reasoning, judgement; truth, certainty and probability.

&R 318. Metaphysics (3) Prerequisite: P&R 101 or 201-202. Fundamental issues and positions concerning the nature of reality: Theories of being, substance, causality.

&R 320. Philosophy of Mind (3) Prerequisite: P&R 101 or consent of instructor. Selected readings drawn from classical and/or contemporary sources bearing on problems of the self, such as the issue of personal identity and the concept of a person, the problem of the relation of mind and body and the question of the nature of consciousness.

&R 340. Philosophy of Religion (3) Prerequisite: P&R 101. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism.

&R 345. Philosophy of Science (3) Prerequisite: P&R 101 or consent of instructor. Fundamental issues in the philosophy of science; the nature of scientific method; modes of verification and the role of paradigms.

&R 400. Colloquium for Majors (3) Prerequisite: Junior or senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors in junior or senior year; open to qualified non-majors.

P&R 401. The Philosophy of Immanuel Kant (3) Prerequisite: P&R 101 or 202. An examination of the thought and influence of Kant in his three great critiques, especially the first, the Critique of Pure Reason, as well as in his Groundwork of the Metaphysics of Morals.

P&R 405. Contemporary Philosophical Thought (3) Prerequisite: P&R 101 or 202. Primary source study of the various philosophers of the 20th century, representing the major schools or movements.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

P&R 495. Seminar (1-3) Prerequisite: Credit in philosophy and religion and consent of department. Research of selected philosophic and/or religious problems. Three hours each week.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Religion Course Descriptions

(Department of Philosophy and Religion)

P&R 103. Introduction to Religion (3) Religion as a field of study; major modes of religious expression; chief issues in religious thought and experience; the search for method since the Enlightenment critique; contemporary developments.

P&R 125. Great Books of the World's Religions (3) Selections from classic writings of both Western and Eastern religions, including Hebrew Bible, the New Testament, the Qur'an, and Buddhist and Hindu scriptures. Examination of their central ideas and values as well as their development and acceptance as sacred scriptures.

P&R 140. Research Tools for Historical and Textual Criticism—Hebrew (3) Basic study of the Hebrew language with special attention to that of the Old Testament.

P&R 141. Research Tools for Historical and Textual Criticism—Greek (3) Basic study of the Greek language with special attention to that of the New Testament.

P&R 230. Judaism, Christianity and Islam (3) Survey of the three major Abrahamic faiths; the origins, beliefs and practices of these "people of the Book;" history of their interactions and influence on Western culture.

P&R 231. Primitive and Classical Religions (3) A survey of primitive religion as revealed both in archaeological research and remaining primitive customs; examination of classical faiths of Egypt, Mesopotamia and ancient Europe.

P&R 232. Asian Religions (3) A survey of Hinduism, Buddhism, Taoism, and Confucianism; historical aspects, basic insights, contemporary relevance.

P&R 235. Introduction to the Old Testament (3) Historical study of the Hebrew scriptures and their cultural background; focus on the values, problems, and perceptions of the human condition reflected in these texts and archaeological data related to them.

P&R 236. Introduction to the New Testament (3) Historical survey of the canonical Christian literature; illustration of contemporary methods of text-criticism, literary-criticism, form criticism, and redaction-criticism; focus on results of modern scholarship in appreciating the Gospels and their function in the early Christian community.

P&R 238. History of Christianity I: Early and Medieval (3) Survey of the basic development of the Christian church from its foundation to the Protestant Reformation. Emphasis on major thinkers and pivotal events that determined the historical trends.

P&R 240. History of Christianity II: Modern (3) Survey of the history of Christianity from the Reformation to the present. Accent on the contributions of the chief theologians and the particular problems raised by "modernity" since the 17th century.

P&R 242. Religion in America (3) Survey of religious thought and experience from colonial times to the present; representative Protestant, Catholic, and Jewish leaders; native American and black American traditions; religious reform and revivalism.

P&R 243. Afro-American Religion (3) Study of the religious life of black American communities, with concentration on independent traditions, sects, cults, and a sampling of major thinkers and issues.

P&R 245. Judaism (3) Introduction to religious beliefs, rituals and traditions of Judaism. Examination of its historical background and contemporary significance.

P&R 246. Islam (3) Introduction to religious beliefs, rituals and traditions of Islam. Examination of its historical background and contemporary significance.

P&R 247. Hinduism (3) A survey of Hindu religion and philosophy over its three thousand year history. Examines myths, philosophies, rituals, meditation teachings, and social thought. P&R 248. Buddhism (3) Survey of the essentials of Buddhism as seen in ethical and social thought, meditation practices, philosophies, rituals and art.

P&R 248. Buddhism (3) Survey of the essentials of Buddhism as seen in ethical and social thought, meditation practices, philosophies, rituals and art.

P&R 255. Historical Geography of Middle East (Biblical Era) (3) Prerequisite: GGY 145 or P&R 235 or consent of instructor. Geographical, archaeological, historical, and geological investigation of the physical environment and cultural landscapes that provide the settings for the evolution of the population, economics, and cultures of Southwestern Asia.

P&R 325. Psychology of Religion (3) Prerequisite: P&R 103 or consent of instructor. Selected readings on the nature and types of religious experience, and on theories of personality and consciousness as they relate to religion. Examination of the writings of Freud, Jung, and others.

P&R 334. Old Testament Literature (3) Analysis and interpretation of a particular par of the Hebrew Scriptures. Topics will vary from one course offering to another. (Th Torah; the Prophets; the Writings).

P&R 336. New Testament Literature (3) Analysis and interpretation of a particular par of the New Testament. Topics will vary from one course offering to another. (Th Gospels; the Acts of the Apostles; the Johannine works; the Letters of Paul).

P&R 337. Apocrypha and Pseudepigrapha (3) Prerequisite: P&R 235 or 236. Analysi of the major Jewish and Christian writings related to but excluded from the Bible including histories, apocalypses, testaments, prayers, moral tales, and wisdor books.

P&R 340. Philosophy of Religion (3) Prerequisite: P&R 101 or 103. Examination of th basic problems found in Western Philosophy concerning religion, including effort to prove the existence of God, the role of faith and reason, the problem of evi immortality, religious experience, religious language, and religious pluralism.

351 3

P&R 350. Religious Reform in Modern America (3) Prerequisite: P&R 103 or conser of instructor. Examination of religious thought and action concerning social chang in modern America. Topics include urban revivalism, labor, civil rights, and peac movements. Specific attention given to differing interpretations of scripture, churc teachings, and religious identity.

P&R 352. Southern Religion (3) Prerequisite: P&R 103 or consent of instructor. Study c religion in the Old and New South. Topics include native American religious tradi tions, religious practices of blacks and whites; evangelicalism and fundamentalism church involvement in political and social issues.

P&R 400. Colloquium for Majors (3) Prerequisite: Junior and senior standing. A interdisciplinary investigation of various philosophical and religious questions Themes for study: the problem of evil, the relations of faith and reason, symbol ism and language, meaning of freedom, and concepts of determinism. Require of majors.

P&R 421. Contemporary Religious Thought (3) Prerequisite: P&R 103. Primary sourc study of principal religious thinkers of 20th century, especially within Judaism an Christianity.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing an consent of department chairperson.

P&R 495. Seminar (1-3) Prerequisite: Credit in philosophy and religion and consent o department. Research of selected philosophic and/or religious problems.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors progra and senior standing. Independent study for honors students.

PHYSICAL EDUCATION

(See Health, Physical Education and Recreation)

PHYSICS

Dr. Olszewski, *acting chairperson.* Dr. Alexanian, Dr. Clator, Dr. Davis, Dr. Haywood, Dr. ernandez, Dr. Karim.

Requirements for a Concentration in Physics for the B.A. degree: PHY 201-202, 215, 25, 260, 321, 335, 400 (1 semester hour), 495, and two 300-400 level physics courses; HM 101-102 with lab; MAT 161-162 and 261. Physics majors working toward certifi- ation for secondary school teaching must also complete Teacher Education Program quirements.

A "C" or better on each physics course.

Requirements for a Concentration in Physics for the B.S. degree: PHY 201-202, 215, 1-312, 321-322, 335, 345, 400 (3 semester hours), 411-412, 455, 495, and two of the lowing: 415, 425, 435, or 445; CHM 101-102 with lab; MAT 335, 361 and one additional ree semester hour MAT course at the 300-400 level.

A "C" or better on each physics course.

Note: Students interested in the B.S. degree in Physics are advised to take the PHY 1-202 sequence in the freshman year.

Physics Course Descriptions

HY 101-102. Elementary College Physics (4-4) Corequisite: MAT 111. Mechanics, heat, sound, light, electricity and magnetism, and introduction to modern physics. Three lecture and two laboratory hours each week.

HY 105. Introductory Physics (4) Terminal course designed to cover basic principles of physics. May not be taken for credit if student has already successfully completed PHY 205. Three lecture and two laboratory hours each week.

HY 170. Photography (3) Techniques and procedures in the use of photographic materials and equipment. Two lecture and two laboratory hours each week.

HY 201-202. General Physics (5-5) Corequisite: MAT 161-162. 201: Mechanics, heat, wave motion and acoustics. 202: Electrostatics, magnetism, circuits, electrodynamics, optics, atoms, electrons, radioactivity and nuclear physics. Four lecture and two laboratory hours each week.

HY 205. Basic Concepts in Physics (3) An introductory course covering a broad spectrum of topics in physics: Mechanics; properties of matter; heat; sound; electricity and magnetism; light; atomic and nuclear physics; and relativity and astrophysics. May not be taken for credit if student has already successfully completed PHY 105.

PHY 206-207. Problems in General Physics (2-2) Prerequisite: PHY 101-102 an corequisite: MAT 161-162. Problems in general physics and their applications. Tw problem sessions each week.

PHY 211-212. Electric Circuits (4-4) Corequisite: MAT 161. Fundamental laws of electr circuits; transient and steady-state sinusoidal analysis of linear circuits by comple frequency; phasor and two-port networks. Three lecture and three laboratory hou each week.

PHY 215. Special Relativity (1) Prerequisite: PHY 201 and corequisite: PHY 202. Th geometry of spacetime; relativistic momentum, energy, kinematics, and dynamic the physics of curved spacetime; and the effect of relativity on electricity.

PHY 225. Electronics (3) Prerequisite: Consent of instructor. An introduction to electron ics with emphasis on instrumentation and techniques used in scientific laboratorie Two lecture and two laboratory hours each week.

PHY 260. Introduction to Astronomy (3) Descriptive course in principles, theories, an techniques of astronomy. Occasional night viewing.

PHY 311-312. Mathematical Physics (3-3) Prerequisite: PHY 202. An introduction to th mathematical techniques useful in physics: vector analysis, operator and matr analysis; functions of a complex variable and calculus of residues; differential equa tions, special functions of a complex variable and calculus of residues; differenti equations, special functions of mathematical physics; Fourier series and transform eigenfunctions and Sturm-Liouville equation; Green's functions; variational method and perturbation theory.

PHY 321-322. Mechanics (3-3) Prerequisite: PHY 202. Elements of Newtonian mechanic mechanics of continuous media, Lagrange's equation, rotation of a rigid body.

PHY 335. Introduction to Modern Physics (3) Corequisite: PHY 215. Survey of moder atomic and nuclear physics, including historical development, and wave mechanics

PHY 345. Quantum Mechanics (3) Prerequisite: PHY 335 and corequisite: MAT 36 An introduction to the basic principles of quantum mechanics. Topics includ operators; symmetry; orbital and spin angular momentum; and applications to sir ple systems.

PHY 400. Advanced Laboratory (1) (May be repeated for up to three hours cred Prerequisite: Consent of instructor. Designed to acquaint students with the variou laboratory techniques, error analysis and reduction of data by digital computer.

PHY 411-412. Electricity and Magnetism (3-3) Prerequisit MAT 261. Electric and magnetic field theory; Poisson's and Laplace's equatio harmonic methods, special methods for solution of electrostatics problem material media and boundary value problems; electromagnetic waves and radi tion; electromagnetic laws of optics.

HY 415. Solid State Physics (3) Prerequisite: PHY 335. A study of the basic properties of solids—crystal structure; mechanical, thermal and electromagnetic properties as determined by the phonon, electron, and magnon characteristics.

HY 425. Atomic and Molecular Physics (3) Prerequisite: PHY 345. The quantum theory of atomic and molecular structure and spectra. Topics include relativistic and electromagnetic interactions; the hydrogen atom, the helium atom, multielectron atoms; radiative and Auger transitions, selection rules; diatomic and simple polyatomic molecules.

HY 435. Nuclear Physics (3) Prerequisite: PHY 345 or consent of instructor. Introduction to properties of the nucleus; natural and artificial radioactivity; nuclear reactions and particle accelerators.

HY 445. Optics (3) Prerequisite: PHY 202 and MAT 261. Physical and geometrical optics. Huygen's principles, electromagnetic theory of light.

HY 455. Thermal Physics (3) Prerequisite: PHY 335 or consent of instructor. Principles of thermodynamics and heat transfer; response of molecules to temperature effects illustrated by introduction to kinetic theory and statistical mechanics.

HY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

HY 495. Physics Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in physics.

HY 499. Honors Work in Physics (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

r 292 and 492; 294 and 494, see explanations on p. 82.

POLITICAL SCIENCE

Dr. Dixon, *chairperson.* Dr. Ahmad, Dr. Johnston, Dr. Jones, Dr. Lowery, Dr. Sheridan, Dr. agoner, Ms. Wang

Requirements for a Concentration in Political Science for the B.A. degree: 42 hours Political Science which must include 101-102, 111, 210 and 211. 18 must be at the 0-400 levels and at least one 300-400 level course must be taken in each of the owing sub-fields: American government and politics, political theory and methodology, ernational relations, and comparative government. Students are expected to complete required lower level courses before upper level ones.

A "C" grade point average over-all on 300-400 level political science courses is required, d at least a "C" grade is mandatory in the specific courses required in the department ed above.

Required collaterals: 24 hours selected from departmentally approved courses in a least four of following disciplines: anthropology, criminal justice, economics, environmental studies, geog-hy, history, philosophy, psychology, social work, sociology, and speech communication.

A knowledge of the skills of research or of a modern foreign language is required. This can be demonstrated by either of these methods: passing the statistics in the social sciences course (STT205) or passing six semester hours in one of the modern foreign languages chosen from the following courses: 101, 102, 201, 202, or upper level courses for which 202 is a prerequisite.

Students planning to do graduate work are urged to study a modern foreign language and acquire a basic knowledge of computer science, statistics and mathematics through the calculus.

Political Science Course Descriptions

(Department of Political Science)

PLS 101-102. American National Government (3-3) 101 focuses upon basic principles, institutions and functions such as federalism, separation of powers, civil liberties and judicial review. 102 introduces the political environment of public opinion, political parties and interest groups and traces its impact upon national policy areas such as civil rights, the economy, and national defense.

PLS 111. Politics and Government in Global Perspective (3) A survey from a cross-national, comparative perspective of politics and governmental institutions within and among nation-states. Attention will also be given to the role of political theory and ideology in the governance of states.

PLS 202. Contemporary Political Issues (3) An examination of important domestic and international political issues and their relationship to the overall political process. Topics include arms control, affirmative-action, the media and politics, social welfare policy, U.S. policy toward the Third World, and religion and politics.

PLS 206. American State Government and Politics (3) A survey and analysis of the organization, functions, and political processes of the American states.

PLS 207. American Urban Government and Politics (3) A study of the structure, functions, political processes, problems and trends in American city and metropolitan government and politics.

PLS 210-211. Research Methods in Political Science (3-3) An introduction to the rationale and application of basic methods of political research. PLS 210 focuses on library research, the information sources of government and politics and how to use them. PLS 211 introduces quantitative methods - the principles, applications and limitations of statistical and computer analysis of political phenomena.

PLS 300, 301. American Constitutional Law (3,3) Prerequisite: PLS 101. Analytical study of U.S. Supreme Court decisions affecting separation of powers and individual rights. 300: the powers of the judicial, executive, and legislative branches of national government; the relationships among these branches; and the federal system. 301: individual rights and liberties other than procedural rights of persons involved with the criminal justice system.

PLS 302. Public Opinion and Democracy (3) Prerequisite: PLS 211 or consent of instructor. An examination of the origin, content, and policy impact of public opinion in democratic nations, with major emphasis on the contemporary American experience.

PLS 303. Elections and Voting Behavior (3) Prerequisite: PLS 211 or consent of instructor. An evaluation of the impact of citizen beliefs and preferences on election outcomes. The course is structured around a critical examination of the assumptions, findings and interpretations of the major voting studies since World War II.

PLS 304. Introduction to Public Policy Analysis (3) Prerequisite: PLS 101. A study of the theories and methods of analyzing and explaining public policy and the substance of recent domestic policies in the areas of public finance and human and physical resources, including welfare, education, protection of the environment, housing, health, urban renewal and transportation.

PLS 305. The Constitution and the Criminal Justice System (3) Prerequisite: PLS 101. Study of U.S. Supreme Court decisions on rights of suspects, defendants, witnesses, and convicted criminals.

PLS 307. The American Legislature (3) Prerequisite: PLS 101. Functional study of legislative bodies and lawmaking. Among the topics studied will be the role of legislatures; the impact of constituencies, parties, interest groups, interpersonal relationships and other pressures on legislators; legislative structure; and the decision-making process.

PLS 308. Public Administration (3) Prerequisite: PLS 101. Introduction to public administration in the United States. Nature and scope of public administration, public interest in the administrative process, role of administrators, formal and informal organization, public personnel and financial management.

PLS 309. The American Chief Executive (3) Prerequisite: PLS 101. An examination of the concept of a political chief executive as a coordinate member, with legislature and courts, of a government team. Emphasis will be placed on the powers, roles, decision making processes, and institutional development of the offices of president, governor, and mayor.

PLS 310. (P&R 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or consent of the instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include natural law; historical, analytical and sociological jurisprudence; idealism; utilitarianism; legal realism; equity, justice, precedent, custom and law; and the relation of law and morality.

PLS 311. (SOC 311) Techniques of Public Opinion Polling (3) Prerequisite: PLS 211 or consent of instructor. Basic skills in all phases of public opinion polling; issue focus; questionnaire construction; sample selection, interview techniques; elementary data analysis; interpretation and presentation of results. Opinion polls of current political and social issues conducted as class projects to develop these skills.

PLS 312. Scope and Methods of Political Science (3) Prerequisite: PLS 102, 111, and 211. A synthesis of the theoretical questions, techniques, and approaches in the sub-fields of political science, e.g. American politics, comparative politics, international relations, political behavior, public law and political theory.

PLS 313. Early Political Thought (3) An introduction to the origin and development of political theory from the 5th Century B.C. through the medieval era. Emphasis will be placed on the political ideas of Plato, Aristotle, the Epicureans, the Stoics, Cicero, Augustine, medieval philosophers, and Aquinas in order to discover the recurring themes of political inquiry.

PLS 314. Modern Political Thought (3) A critical examination of political ideas from 1500 to 1900 with special attention to those of Machiavelli, Hobbes, Locke, Rousseau, Montesquieu, Hume, Burke, Hegel, Bentham, Marx, the Mills, Spencer, T.H. Green and Nietzsche.

PLS 315. Contemporary Political Ideologies (3) A study of the concept of ideology and its significance in the modern world. Systematic analysis of the major political ideologies of the 19th and 20th centuries with emphasis on democracy, communism, fascism, nationalism, anarchism, and the New Left.

PLS 316. Women and Politics (3) Prerequisite: PLS 111 or 101 or consent of instructor. An introduction to political perspectives on sex role differentiation. Among the topics to be discussed will be political socialization of women in ancient and modern society; women's roles in politics and government; political consequences of women's entry into the work force; and contemporary issues in the women's movement. Emphasis will be placed throughout on comparative political analysis.

PLS 330. Political Systems of Africa (3) The governments and politics of selected sub-Saharan African states. A survey from colonial days to the present with emphasis on contemporary economic, social and political problems.

PLS 331. Politics in Developing Nations (3) An examination of the political, economic, and social problems confronting developing nations. Attention will be given to such issues as cultural pluralism, one-party states, military dictatorships, and U.S. relations with the developing world.

PLS 335. European Political Systems (3) Political institutions and processes of selected European countries, including Great Britain, France and Germany.

PLS 336. Political Systems of the Soviet Union and Eastern Europe (3) A comparative study of the political institutions and processes of the Soviet Union and the eastern European Countries; the post-Stalin dynamics and the nature and significance of contemporary changes. Attention will be given to their foreign relations, especially with Communist China.

PLS 338. Political Systems of the Middle East (3) The governments and politics of the Middle East with emphasis on the changes that have occurred since 1945. A detailed examination of the forces that have shaped contemporary Middle Eastern politics: Islam, nationalism, modernization, and current political trends. The politi-

cal institutions and processes and the domestic and foreign policies of selected countries will be studied.

PLS 339. Political Systems of Asia (3) The political systems of selected Asian countries. Special emphasis on the contemporary political, social and economic problems of India, Pakistan, Japan, China, Indonesia and other Asian countries.

PLS 340. Blacks in American Politics (3) Prerequisite: PLS 111 or 101 or consent of instructor. A study of American political institutions and processes through the eyes of Black America. This study will analyze the power structure in the black community, dissent and protest, black participation in the political system, black leaders and politicians and their politics, and the uniqueness of black politics as compared with the wider spectrum of the political system.

PLS 405. American Parties and Pressure Groups (3) Prerequisite: PLS 211 or consent of instructor. An historical and analytical treatment of the appearance and realignment of political parties during the five successive "national party systems" since the beginning of the republic. Special emphasis is given to the question of contemporary party disarray and potential realignment.

PLS 406. Contemporary Southern Politics (3) Prerequisite: PLS 211 or consent of instructor. An examination of recent developments throughout the American South and their impact on national politics. Topics covered include southern political culture, the decline of the one-party system, and the changing roles of blacks and organized labor. Emphasis is placed upon independent research projects involving student analysis of census, election return, and public opinion survey data.

PLS 407. The American Judicial Systems (3) Prerequisite: PLS 101. Analysis of the organization, powers and role of the judiciary. Topics studied will include the political role of American judges, factors influencing judicial policy-making, selection of judges, the role of lawyers, and socio-metric relationships within the judiciary.

PLS 415. American Political Thought (3) American political thought from the colonial period to the present.

PLS 422. Contemporary American Foreign Policy (3) Prerequisite: PLS 101 or 111. The roles and interrelationships of Congress, the media, public opinion, the president, the secretaries and departments of state and defense, and the intelligence community are examined. Emphasis is placed on the content and the dynamic aspects of the process of policy formulation and implementation.

PLS 423. National Security Policy (3) Prerequisite: PLS 101. A study of formulation of security policy, including the roles of the executive and legislative branches and of non-governmental factors; evolution of changing assumptions, strategies, and goals; the nature of U.S. security requirements, U.S. military commitments abroad, and the cost of strategies based on weapons superiority, arms control, and disarmament.

PLS 425. International Politics (3) Nature of international relations including analyses of basic factors motivating national policies; the United Nations and other international organizations as institutions for promoting peace and welfare in a world of sovereign states.

PLS 426. International Law (3) Prerequisite: PLS 101. Nature, development and basic concepts of international law. Examination of the scope, sources and sanctions of international law; its relation to municipal law; the rights and duties of states and individuals; methods of settling international disputes. Characteristic cases used as illustrations.

PLS 427. International Organizations (3) Prerequisite: PLS 111 or 101 or consent of instructor. A survey of the evolution, objectives and methods of various types of regional and universal organizations and their role in contemporary international relations. Special emphasis will be placed on the principal functions and agencies of the United Nations and the European economic community.

PLS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

PLS 495. Departmental Seminar (1-3) Prerequisite: Six hours of political science and consent of department chairperson. Consideration of special topics in political science. May be repeated for additional credit.

PLS 498. Internship in Political Science (3-6) Prerequisite: PLS 111, 101, 211, and at least one of the following: PLS 300, 304, or 308. This course is open only to persons taking a concentration in political science who are classified as junior or seniors. The internship involves an experiential learning in selected public or private agencies or with an individual which allows the student to utilize academic training while learning from a practical field experience. A formal research project is a major part of the internship.

PLS 499. Honors Work in Political Science (2-3) Prerequisite: Eligibility for honors program and junior or senior standing. Individual study for honors students.

For 292 and 492; 294 and 494, see explanations on p. 82.

PSYCHOLOGY

Dr. Williams, *chairperson.* Dr. Applefield, Dr. Bradley, Dr. Brown, Dr. Bruce, Dr. Galizio, Dr. Hakan, Dr. Jackson, Dr. Johnson, Dr. Kishton, Dr. Kowal, Dr. Lamb, Dr. Newton, Dr. Overman, Dr. Pilgrim, Dr. Puente, Dr. Sanders, Dr. Simmons.

Requirements for a Concentration in Psychology for the B.A. degree: PSY 105, 225, 355, 405, one course from each of the six categories listed below, and nine additional hours in PSY courses at the 300-400 level. Category 1: PSY 220, 221, 320, 323 or 324. Category 2: PSY 410, 412, 417. Category 3: PSY 418, 456 or 457. Category 4: PSY 346, 347 or 365. Category 5: PSY 336, 337 or 425. Category 6: PSY 350, 352, 450, or 465. A grade of "C" or better is required in PSY 105, and no more than one course with a grade of "D" can count toward the requirements for a concentration in psychology. There also must be a "C" or better average across all courses attempted within the department. Twelve hours of collateral courses, including one course in biology and selected from a list available in the departmental office, are required.

Psychology Course Descriptions

SY 105. General Psychology (3) Principles of psychology with emphasis on scientific methods used in studying human behavior.

SY 110. Self-Management and Self-Motivation (3) Techniques and concepts to provide knowledge, skills, and attitudes to improve performance. Development in coping skills, including determination and modification of motivation, self-management and time-management skills, and efficient methods of learning and organizing materials and solving problems. (Not for social science general degree requirement of psychology major credit.)

SY 145. Psychology Applied to Human Life (3) A study of psychological principles and findings as applied to particular fields of endeavor and to various stress situations. Primary emphasis will be on the problem of human adjustment.

SY 216. Educational Psychology (3) Prerequisite: PSY 105 is suggested. Study of the application of psychological theories and principles in educational settings.

SY 220. Child Psychology (3) Prerequisite: PSY 105 or 145. Study of human psychological development through childhood and early adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development.

SY 221. Adolescent Psychology (3) Prerequisite: PSY 105 or 145. Study of human psychological development from late childhood through adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development.

SY 223. Lifespan Human Development (3) Prerequisite: PSY 105 or 145. Variables and factors underlying human growth and development across the lifespan. Physical, cognitive, social, emotional, and sexual development are emphasized.

SY 225. Introductory Statistics for the Behavioral Sciences (4) Prerequisite: PSY 105 and satisfactory performance on the UNCW mathematics placement test. Introduction to the statistical techniques most often used by behavioral scientists for either descriptive purposes or hypothesis testing. Parametric techniques are emphasized, but nonparametric tests are included. Three lecture and two laboratory hours each week.

SY 245. Drugs and Behavior (3) Prerequisite: Three semester hours credit in psychology. An examination of the psychological aspects of drug use and abuse. Emphasis will be on the effects of major psychoactive drugs (including alcohol) on behavior, the psychological determinants of drug use, and treatment of drug abuse.

SY 262. Psychology of Consciousness (3) Prerequisite: PSY 105. A study of the mental processes which occur during various states of human consciousness such as sleep, biofeedback and meditation. Emphasis on the research and theories of brain processes during states of consciousness.

PSY 265. Human Sexual Behavior (3) Prerequisite: Three hours of psychology, excludin PSY 110. Examination of the psychological aspects of human sexuality with emphas on psychosexual development and behavior. Includes discussion of causative fac tors and treatment of sexual disorders and deviations.

PSY 311. Psychology of Language (3) Prerequisite: PSY 105. An introduction to theo and research concerning human language use. Topics will include the nature human linguistic competence, the perception of speech, the comprehension speech, memory for verbal information, the production of speech, and the biologic basis of human language.

PSY 320. Developmental Psychology (3) Prerequisite: PSY 105 or 220. Examination various areas of behavior (motor, social, and intellectual) and theoretical explana tions of their development. Emphasis on underlying psychological and biologic processes.

PSY 322. Psychology of Exceptional Children (3) Prerequisite: PSY 105 or 220. A stu of the physical, cognitive, and personality characteristics of the major types of chil hood exceptionality, including high intelligence and creativity, mental retardatio learning disabilities, emotional disorders, language impairments, and sensory a physical handicaps. Issues such as assessment, etiology, family relations, a treatment will be discussed.

PSY 324. Psychology of Adulthood and Aging (3) Prerequisite: Three hours in psych ogy, excluding PSY 110. A developmental approach to the portion of the lifespa from young adulthood through sensescence. Emphasis on the interaction of psych logical, psychosocial and physiological aspects of development.

PSY 336. Industrial Psychology (3) Prerequisite: PSY 105. The study of psychologic techniques in personnel selection and placement, merit rating, reduction of ac dents, training, morale, and other factors utilized in industrial work.

PSY 337. Vocational Psychology (3) Prerequisite: PSY 105 or permission of instruct The study of individual vocational behavior and development. Topics include t history of vocational psychology, theories of vocational development and choic as well as stimulus, organismic, and response variables correlated with the choi process. Attention is directed toward theories and research concerning the meani of vocational motivation and vocational adjustment, as well as the prediction vocational success and satisfaction. Systems for defining vocational problems a included.

PSY 346. Psychology of Personality (3) Prerequisite: PSY 105. A study of the basic fac concerning the structure, organization, and adjustmental mechanisms of personalit

PSY 347. Psychopathology (3) Prerequisite: PSY 105. The study of behavioral patholog Emphasis will be placed on the underlying factors of the neuroses, psychoses, a character disorders.

PSY 350. Principles of Behavioral Change (3) Prerequisite: PSY 105. Application of t principles of behavioral control in interpersonal, educational, and clinical setting

Primary emphasis will be on behavioral modification techniques such as contingency management, desensitization, biofeedback, etc.

SY 352. **Behavioral Medicine (3)** Prerequisite: PSY 105 or 145. Integrates psychological and biomedical knowledge relevant to physical health and illness. Describes the interaction of psychological phenomena with the epidemiology, etiology, pathogenesis, treatment, and rehabilitation of physical disorders.

SY 355. **Introduction to Experimental Psychology (4)** Prerequisite: PSY 225. Basic principles of psychological research design and evaluation, including techniques of data collection and analysis, and conduct, interpretation, and reporting of various types of psychological research. Experimental research is emphasized. Three lecture and three laboratory hours each week.

SY 365. **Social Psychology (3)** Prerequisite: PSY 105. The study of individual human behavior as a function of the influence of other persons. Emphasis on the psychology of person perception, interpersonal communication and relationships, attitude formation and change, and small group behavior.

SY 366. **Psychology of Marriage and Family (3)** Prerequisite: Three hours of psychology. The study of personality development within the marriage and family including recent theoretical and empirical findings on courtship, interpersonal attraction, marriage contract, and the various stages of the family life cycle. Communication, familial functioning and dysfunctioning are emphasized.

SY 370. **(EVS 370) Environmental Psychology (3)** Prerequisite: PSY 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of this environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment.

SY 405. **History and Systems of Psychology (3)** Prerequisite: Fifteen semester hours credit in psychology. History of psychology relative to current trends.

SY 410. **Cognitive Psychology (4)** Prerequisite: PSY 355. Introduction to theories and research related to human cognition. Memory, attention, problem solving, and thinking are emphasized. Three lecture and three laboratory hours each week.

SY 412. **Sensation and Perception (4)** Prerequisite: PSY 355. Survey of sensory and perceptual processes, techniques for measuring sensations and perceptions, and theories of perception. Psychological, anatomical, physiological, and environmental factors important in determining how we perceive the world are examined. Demonstrations will introduce students to interesting perceptual phenomena. Three lecture and three laboratory hours each week.

SY 417. **Psychology of Learning (4)** Prerequisite: PSY 355. Study of the basic facts related to the learning process. Effects of reinforcement, extinction, generalization and discrimination, verbal learning and retention, as well as other phenomena, are considered. Three lecture and three laboratory hours each week.

PSY 418. Motivation and Emotion (3) Prerequisite: PSY 105 and BIO 105 or consent o instructor. Psychological theory and research in the areas of motivation and emotion Basic as well as more complex motive states will be examined as they arise fro physiological needs and from learning and cognitive processes. Data from anim as well as human studies will be considered.

PSY 425. Psychological Tests and Measurements (4) Prerequisite: PSY 105 and 22 or consent of instructor. Introduction to theory and practice of test constructio including a survey of intelligence, achievement and personality tests and their app cations. Three lecture and two laboratory hours each week.

PSY 449. Psychology of Death (3) Prerequisite: PSY 105. A study of psychologic aspects of death and dying. Man's conceptualization of and behavior toward h own demise will be studied. Special emphasis will be placed on the behavior context surrounding terminal illness, suicide, and homicide. Psychological aspec of gerontology will also be considered.

PSY 450. Introduction to Counseling (3) Prerequisite: PSY 346 or 347. The major his torical and contemporary theories of counseling including Freudian, client-centere behavioristic and existential will be reviewed. Examination of each theory will b accompanied by demonstration and role-play situations in which the elements o each theory are explored.

PSY 451. Supervised Counseling Practice (3) Prerequisite: PSY 346, 347 and 450 an consent of instructor. This course will provide for supervision of student practice i application of counseling skills and techniques in a variety of in-service situation The student will participate in supervised counseling experiences in local soci service agencies. The emphasis will be upon practice of skills combined with regul consultation with the supervisor. May be repeated once for additional credit.

PSY 452. Ethical Principles in Psychology (1) Prerequisite: Permission of the instructo A study of the ethical considerations involved in counseling and psychotherap psychological testing, and the use of human subjects in research.

PSY 455. Advanced Psychological Research (3) Prerequisite: PSY 355 and conse of instructor. Experience in the design, conduct, and evaluation of psychologic research. Advanceddesign and analysis techniques. Each student designs and co ducts a research project and a laboratory exercise for PSY 355. Offered on demanc

PSY 456. Physiological Psychology (3) Prerequisite: PSY 105 and BIO 105 or consent o instructor. A study of the anatomy of the nervous system and the roles which variou neural structures play in the control of behavior.

PSY 457. Animal Behavior (3) Prerequisite: PSY 105 and Biology 105 or consent o instructor. A study of animal behavior including the traditional areas of ethology an comparative psychology. Primary emphasis is upon the similarities and difference in the behaviors of animals occupying various phylogenetic positions.

PSY 465. Community Psychology (3) Prerequisite: PSY 105. PSY 365 is suggested. A study of the contributions of psychology to the understanding of an individual

behavior as influenced by his community environment. A major consideration will be given to the problems associated with community mental health.

PSY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

PSY 495. Topical Seminar (1-3) Prerequisite: PSY 105 and consent of instructor. Discussion of selected topics in psychology. May be repeated for additional credit.

PSY 499. Honors Work in Psychology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492; 294 and 494; see explanations on p. 82.

RECREATION

(See Health, Physical Education and Recreation)

SOCIAL SCIENCE

(Interdepartmental)

Participating disciplines: anthropology, earth sciences, political science, psychology, sociology.

Requirements for a Concentration in Social Science for the B.A. degree: 51 hours in the Social Sciences, with a minimum of 30 hours in courses above 299. At least one course is required in each of the five participating disciplines, or at least one course required in four disciplines with an additional course in economics. A minimum of 21 hours is required in the primary concentration area, with at least 15 of these hours in courses above 299. A minimum of 12 hours is required in each of two secondary concentration areas. At least six additional hours in social science are required.

Additional required courses include: a research methods course, the discipline of this course to be decided by the advisor and the student (3 hours); an appropriate statistics course (3 hours); a two-course history sequence, or an appropriate pairing to be decided by the advisor and the student (6 hours). A computer science course is recommended, but not required. At least a 2.0 grade point average in the social science concentration must be attained.

A faculty member within the area of primary concentration shall serve as the student's advisor. Note: The primary concentration area may not serve as a discipline in a double major.

SOCIOLOGY AND ANTHROPOLOGY

Dr. Sabella, *chairperson.*

The Department of Sociology and Anthropology is comprised of anthropology, criminal justice, social work and sociology. The baccalaureate degree is offered in anthropology, criminal justice, sociology and the BSW degree in social work.

Anthropology

Dr. Lerch, Dr. Loftfield, Dr. McCall, Dr. O'Meara, Dr. Sabella.

Requirements for a Concentration in Anthropology for the B.A. degree: ANT 206, 207, 207-51, 210, 345, 450 and 21 additional hours comprised of two courses from each of the first three subfields listed below and one from the linguistics group. Physical: 320, 322, 324, 430. Archaeology: 307, 311, 312, 411. Cultural: 301, 302, 303, 304, 305, 306, 309, 317, 350. Linguistics: ANT 208, PSY 311, ENG 320, 322. Although no collateral courses are required, students contemplating a professional career in anthropology are urged to study a foreign language and acquire basic skills in computer science and statistics. Anthropology advisors may recommend additional courses in the sciences, humanities, or mathematics commensurate with individual career plans. A "C" grade point average is required in departmental courses, and at least a "C" grade is mandatory in specific courses required in the department.

Anthropology Course Descriptions

(Department of Sociology and Anthropology)

ANT 105. Introduction to Anthropology (3) Introduction to thephysical, archaeological, linguistic, and ethnological fields of anthropology; biological and cultural evolution of man.

ANT 205. (SOC 205) Human Societies (3) The comparative study of human society and culture, with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions—economy, marriage and kinship, politics and religion—which underlie and support a particular way of life. Comparisons are drawn among huntergatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamics of social process and cultural change are also introduced.

ANT 206. Cultural Anthropology (3) A presentation of the content and historical development of cultural anthropology. Deals with the cultural relativism, ethnocentrism, institutional analysis and cultural integration and shifts in theoretical perspectives by comparing ethnographies of selected cultures.

ANT 207. Archaeology (3) The concepts and aims of archaeology, its history as a scientific discipline and its present role in the social sciences. Attention to basic principles in field work and to recent advances.

ANTL 207-51. Archaeological Laboratory (1) Corequisite or prerequisite: ANT 207. Course is designed to familiarize students with techniques of archaeological recover, preparation, preservation, and analysis of recovered archaeological materials. Laboratory work will parallel lecture, providing practical experience in techniques covered as part of lecture course. It is not necessary to take the lab in order to take lecture. Three hours each week.

ANT 208. Language and Culture (3) Human language, its characteristics and its relationship to other communication systems will be examined. The use of language to illuminate historical relationships and current sociocultural processes will be discussed, as well as ways in which one can investigate culture through cognitive structures elicited from speech.

ANT 210. Physical Anthropology (3) Introduction to the study of human evolution. Consideration given to the fossil evidence for humans and putative human ancestors, early development of culture, and dynamics of cultural and biological changes in recent and living human populations.

ANT 222. Pacific Island Societies (3) Introduction to the people and islands of the Pacific, including their traditional cultures, their prehistory, and their history as colonies and as contemporary nations.

ANT 230. (SOC 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are reviewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival.

ANT 250. Anthropology Through Film (3) A series of anthropological (ethnographic) films exploring life and values, especially in nonwestern societies, provide the primary course material. The films are used as a surrogate field experience to introduce a number of major anthropological topics that receive further emphasis in assigned readings and class discussion. Ethnocentrism, adaptation, warfare and acculturation among other themes are explored in this course.

ANT 301. Shamanism, Witchcraft, and Cults (3) Prerequisite: ANT 105 or consent of instructor. A study of the religious institutions of traditional band, tribal and peasant societies. Topics cover psychological stress, social control, and ritual healing. The cult within modern western society will be compared with those in traditional preindustrial society.

ANT 302. Traditional Societies in the Modern World (3) Prerequisite: ANT 105 or consent of instructor. An assessment of the impact of Western industrial societies on primitive and peasant peoples of the world. Themes of acculturation, underdevelopment, modernization, economic dependency and rural to urban migration will be treated from a cross-cultural perspective.

ANT 303. Women, Work and Culture (3) Prerequisite: ANT 105 or SOC 105 or consent of instructor. A study of women's work in traditional societies (primarily Third World). The allocation of work to women is seen as affected by such factors as socialization

and gender definition, economic exchange patterns, division of labor, religious beliefs, political structure, and the impact of modernization and development policies on work and family roles of Third World women.

ANT 304. Indians of South America (3) Prerequisite: Consent of instructor. This course will acquaint the student with human populations and their adaptations to the South American continent. Approximately equal emphasis is given to lowland tribes and Andean cultures. Both of these will be studied from an historic perspective spanning the entire period of man's presence on the continent.

ANT 305. Indians of North America (3) Prerequisite: Consent of instructor. Surveys of North American Indian tribes; subsistence patterns reflected through cultural adaptation to various ecotypes; archaeological analysis of the interplay of Asian and Mexican influences; restructuring of North American Indian cultures as a consequence of European influence.

ANT 306. Principles of Kinship and Social Organization (3) Prerequisite: ANT 105. This course deals with the structures and functions of kinship in a variety of cultures as a background for the study of complex cultural patterns.

ANT 307. New World Archaeology (3) Prerequisite: ANT 105 or 207 or consent of instructor. The entry of man into North America and South America will be examined using archaeological data. Other topics will include the post-Pleistocene expansion of big game hunters, woodland hunter-gatherers, and the development of agricultural societies. Diffusion versus independent invention will be considered.

ANT 308. Marine Archaeology: Methods and Theory (3) Prerequisite: ANT 207, Diver's Certificate. Corequisite: ANT 310. This course is designed to introduce the archaeologist to the field of underwater archaeology. Both classroom and field sessions will be required. Theory will be derived from the existing literature. The role of the archaeologist as an underwaterscientist will be emphasized.

ANT 309. Environmental Anthropology (3) Prerequisite: ANT 105 or 206 or 207 or consent of instructor. A study of cultural adaptations as responses of human populations to varied environments; this course will focus upon cultural vs. biological adaptation from the archaeological past to the ethnographic present.

ANT 310. Marine Archaeology: Field Practicum (3-6) Prerequisite: ANT 207, Diver's Certificate. Corequisite: ANT 308. Practical field methods will be taught utilizing actual underwater prehistoric or historic sties. Survey techniques, excavation, record-keeping, and preservation will be stressed and adapted to a submarine environment.

ANT 311. Field Methods in Archaeology (3-6) Prerequisite: ANT 207. Practical field methods of land-site archaeology will be taught through the excavation of local archaeological sites. Scientific excavation, sampling, and preservation techniques will be presented as the basic tools of the archaeologist.

ANT 317. The Human Condition in Latin America (3) Prerequisite: ANT 105 or consent of instructor. This course applies the anthropological perspective to the study of the complex national cultures of Latin America. Topics covered focus on the

problem of relating peasant communities, small towns, urban slums, middle class neighborhoods, and clubs and social networks to regional and national institutions.

ANT 320. Human Origins (3) Prerequisite: ANT 210 or consent of instructor. Classification and history of human evolution deduced from the fossil record and molecular data. Discussion of Tertiary hominoids and emergence of humans with emphasis on Australopithecines and later Pleistocene hominoids.

ANT 322. Primate Biology and Behavior (3) Prerequisite: ANT 210 or consent of instructor. Ecology, social behavior, and functional morphology and classification of living primates (prosimians, monkeys, and apes); their evolutionary history and development.

ANT 324. Human Biological Variation (3) Prerequisite: ANT 210 or consent of instructor. Nature and extent of heritable differences among human populations in evolutionary perspective. Consideration of effects of environmental factors on genic expression.

ANT 345. Method and Practice in Cultural Anthropology (3) Prerequisite: ANT 105 or consent of instructor. A study of ethnographic field methods through selected readings demonstrating field techniques of major figures in cultural anthropology, both past and present. Practice involves exercises in participant-observation, indepth interviewing, survey research, photographic analysis, and tape recordings of cultural events.

ANT 350. Maritime Anthropology (3) Prerequisite: ANT 105 or consent of instructor. A study of fishermen, navigators, boatbuilders, and seamen. This course traces the origins and development of human maritime adaptations in selected regions of the world. Themes include primitive and traditional fisheries, technological innovation, fisheries management and law of thesea.

ANT 387. (ART 387) Museum Studies (3) Prerequisite: Consent of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition, and education.

ANTL 387-51 (ARTL 387-51) Museum Studies Practicum (1) Prerequisite: Consent of instructor. Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ANT 411. (HST 507) Advanced Field Training in Archaeology (3) Prerequisite: HST 201 or 441; graduate status, and consent of instructor. Supervisory training for field archaeologists. Students direct specific aspects of archaeological excavation, including research design, data recovery, daily site management, and field analysis. Summers.

ANT 412. (HST 508) Historical Archaeology (3) Prerequisite: HST 201 or 441 or consent of instructor and graduate status. Substantive investigation of the special excavation and analysis procedures, subject matter, and goals of archaeology as applied to the

historic past of North America. Special emphasis placed upon historic archaeological sites in the local region. Lecture, laboratory, and field work.

ANT 430. (BIO 430) Evolutionary Biology (3) Prerequisite: BIO 335 (Genetics). Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature.

ANT 450. History of Anthropological Theory (3) Prerequisite: Six hours of anthropology above the introductory level or consent of instructor. This course traces the development of anthropological theory through the research and writings of key figures in the field. Attention is directed toward social and intellectual contexts out of which anthropological theories emerge.

ANT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

ANT 495. Topical Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in anthropology.

ANT 499. Honors Work in Anthropology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492; 294 and 494, see explanations on p. 82.

Criminal Justice

Dr. LaGrange, Dr. Supancic, Dr. Willis

Requirements for a Concentration in Criminal Justice for the B.A. degree: CRJ 201, 340, 350, 360, 450, 490 and CRJL 490-51; SOC 105, 306, 307, and 360; STT 205. Majors must take 18 additional hours in criminal justice and sociology to satisfy the following three areas. Any three (nine hours) of the following criminal justice courses: 240, 310, 315, 370, 380, 405, 410, 415, 495. Any two (6 hours) of the following sociology courses: 335, 355, 375, 449. Any one (three hours) of the following sociology courses: 315, 325, 340, 415. The criminal justice program strives to be interdisciplinary, therefore advisors may recommend that majors take additional courses in the sciences and the humanities. Students must receive a "C" grade or better in all required criminal justice and sociology courses and a "C" or better in those criminal justice and sociology courses used to satisfy any of the three areas listed above.

Criminal Justice Course Descriptions

(Department of Sociology and Anthropology)

CRJ 201. Introduction to Criminal Justice (3) Study of criminal law and the criminal justice system in the U.S. Emphasis on structure and function of police, courts and corrections.

CRJ 240. Issues in Criminal Justice (3) Critical issues and contemporary debates in criminal justice.

CRJ 310. White Collar Crime (3) Prerequisite: CRJ 201. Study of crimes of the powerful and the privileged. Topics include: corporate crime; environmental crime; antitrust violations; political bribery; corruption; tax evasion; fraud; embezzlement; conflict of interest.

CRJ 315. Victimology (3) Prerequisite: CRJ 201. Role of victims in crime and criminal justice system. Special focus on sexual battery, battered women and child abuse.

CRJ 340. Police in Society (3) Prerequisite: CRJ 201. Analysis of role and behavior of police in the U.S. Special attention to social environment and political climate affecting the police.

CRJ 350. Criminal Courts (3) Prerequisite: CRJ 201. Analysis of structure and function of U.S. criminal courts. Examines relationships among the courthouse work-group (police, prosecutor, defense attorney, judge) and the role of witnesses, victims, defendants and jurors.

CRJ 360. Corrections (3) Prerequisite: CRJ 201. Study of societal patterns of punishment, alternatives to incarceration, consequences of imprisonment and correctional strategies of rehabilitation and deterrence.

CRJ 370. Minorities, Crime and Criminal Justice Policy (3) Prerequisite: CRJ 201 plus three additional hours in criminal justice. Study of minorities in crime and criminal justice system. Special focus on the role of racism and sexism in theories of crime and in administration of justice.

CRJ 380. Criminal Law and Procedure (3) Prerequisite: CRJ 201 plus three additional hours in criminal justice. Basic concepts of statutory and procedural law. Topics include: definition of crime; elements of major crimes; criminal responsibility; defenses to criminal charges; constitutional and statutory procedures regarding arrest, search and seizure, interrogation and suspect identification. Special focus on North Carolina law. CRJ 405. Criminal Justice Administration (3) Prerequisite: CRJ 201 plus six additional hours in criminal justice. Concentration on management techniques and supervisory roles for various administrative segments of the criminal justice system.

CRJ 405. Criminal Justice Administration (3) Prerequisite: CRJ 201 plus six additional hours in criminal justice. Concentration on management techniques and supervisory roles for various administrative segments of the criminal justice system.

CRJ 410. World Criminal Justice Systems (3) Prerequisite: CRJ 201 plus six additional hours in criminal justice. Comparative study of criminal justice systems throughout the world. Attention to historical, structural, political, legal and philosophical similarities and differences. Analysis includes criminal justice systems of England, France, Sweden, Japan and the Soviet Union. A topical paper is required. Class limited to 20 students.

CRJ 415. Research Methods in Criminal Justice (3) Prerequisite: Nine hours of criminal justice and SOC 306. Advanced research methods with application to criminal justice agencies. Special attention to problems and practical solutions in conducting evaluation research in applied settings.

CRJ 450. Criminal Justice Theory (3) Prerequisite: CRJ 201 plus six additional hours in criminal justice. Theories of justice and crime control. Covers philosophy and principles of the U.S. system of justice.

CRJ 490. Criminal Justice Practicum (3) Prerequisite: Senior standing in criminal justice. Field placement in various criminal justice agencies. Integrates practical experience with classroom knowledge. Practicum students required to participate in ONE hour weekly seminar (CRJL 490-51).

CRJL 490-51. Criminal Justice Laboratory (1) Prerequisite: CRJ 490 corequisite. Classroom discussion of selected topics related to criminal justice practicum.

CRJ 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

CRJ 495. Topical Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Consideration of special topics not dealt with in the regular courses.

For 292 and 492; 294 and 494, see explanations on p. 82.

Social Work

Dr. Blanks, Dr. Polgar, Dr. Shevach.

Requirements for the B.S.W. degree: SOC 105, 306, 307; SWK 235, 245, 301, 302, 396, 435, 490 (6 hours), SWKL 490-51; STT 205 are required. Also required are one other 300 level social work course; three sociology courses chosen from the following: SOC 215, 220, 333, 335, 336, 337, 340, 345, 350, 355, 365, 375, 385. Two psychology courses are required, to be chosen from the following: PSY 105, 145, 220, 245, 265, 323, 324, 346, 347, 350. All social work, sociology and psychology courses must be passed with at least a grade of C.

Social Work Course Descriptions

(Department of Sociology and Anthropology)

SWK 235. Introduction to Social Work (3) History, methods, and practice in professional social work in the United States.

SWK 245. Human Behavior in the Social Environment (3) Prerequisite: SWK 235. A survey of the human behavior from a social systems standpoint. Emphasis on concepts and theories relevant to social work intervention with individuals, families, groups, organizations, and communities. A theoretical foundation for specialized areas of casework, group work, and community organization is provided.

WK 301. Social Casework Methods (3) Prerequisite: SWK 235. An introduction to the basic principles, methods and techniqueswhich form the basis for social work practice with special emphasis on the professional use of self and utilization of systematic processes of problem solving in the delivery of social and rehabilitation services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced.

WK 302. Social Group Work Methods (3) Prerequisite: SWK 301. This course provides an opportunity to explore more fully differential concepts and principles, advocacy role, problemsolving skills, strategies and techniques in providing discrete services to individuals, groups, and communities. Emphasis is on roles, communicative patterns, and types of systems encountered by the social worker. It is also concerned with the broadening and deepening of principles underlying autonomous social work practice, decision techniques, goal formulation and mobilizing competence for action. Observation and participation in a selected human service agency is required.

WK 306. Evaluative Methods for Service Agencies (3) Prerequisite: STT 205 and one computer science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application.

WK 310. Programs and Policies for Older Americans (3) Prerequisite: SWK 235. Health, social, and income needs of an aging population will be related to current laws, programs, administrative networks, and politics. Current issues in the development of programs such as age-integration, community based services, advocacy and protection will be covered.

WK 318. Social Work and Health Care Delivery (3) Prerequisite: SWK 235. An examination of the rationale, issues, problems and practices related to the implementation of client-centered health care. New programs and proposals for the delivery of health services will be reviewed systematically with reference to the implications for social work practice.

WK 336. Suicidology and Crisis Intervention (3) Prerequisite: SWK 235. An examination of the present range of theoretical formulations of crisis theory will be made and related to the variety of ways it is being applied in many fields of practice and in a number of commonly encountered stressful situations. Many points of view and approaches, reflecting diverse efforts at extending the knowledge and practice base of crisis conceptualizations are studied. Emphasis is placed on observing, formulating, defining, and measuring the threats, tasks and opportunities associated with crisis behavior in individuals and families. The use of preventative techniques that are appropriate for individuals, groups and communities are explored. A common theoretical frame of reference will be developed to provide systematic and in-depth response, the range of normally developing life crisis, as well as abnormal and accidental crises.

WK 396. Community Organization and Social Practice (3) Prerequisite: SWK 235. The course analyzes a variety of forms of community organization practice, focusing on

definition of goals, values, roles and skills required for professional practice. Com munity organization is viewed as a process of bringing about desirable changes i community life. Community needs and resources available to meet these needs ar studied.

SWK 435. Social Welfare Policies (3) Prerequisite: SWK 235, 301, and 302. A problemati approach to situations that affect policies, issues, programs and services in socia work and rehabilitation services. An attempt to aid the student in developing a analytical and critical understanding as he explores the motivation and method by which social work and rehabilitation services, policies and programs are bein developed by our society and other countries.

SWK 490. Social Work Practicum (3-6) Prerequisite: Consent of instructor. A fiel experience in selected social agencies designed to permit student applicatio and integration of cognitive and affectual learning with a formalized service system Learning experiences and content are designed to gain and demonstrate beginnin knowledge, attitudes and skills which are consistent with the concepts of socia practice. The student will participate in a two hour weekly seminar.

SWKL 490-51. Social Work Laboratory (1) Prerequisite: SWK 490 corequisite. Integratio of practicum and theory through the discussion of selected topics related to socia work practices. to be taken concurrently with SWK 490. Two hours each week.

SWK 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing an consent of instructor.

SWK 495. Topical Seminar (1-3) Prerequisite: SOC 105, SWK 235 and consent o instructor. A consideration of special topics not dealt with in regular courses.

For 292 and 492; 294 and 494, see explanations on p. 82.

Sociology

Dr. Dixon, Dr. Faulkner, Dr. Huer, Dr. Levy, Dr. Maxwell, Dr. McNamee, Dr. Miller, D Scalf.

Requirements for a Concentration in Sociology for the B.A. degree: SOC 105, 30 360, 406, 460, 490 and 18 additional hours, 12 of which must be at the 300-400 leve STT 205 and SOC 307 are required. Collaterals will be decided in consultation with eac advisee. Within sociology some areas of emphasis are deviance and social contr demography and environmental studies, urban and community studies, family and leisur studies, organizations and bureaucracy, and medical and gerontology. A "C" grade poi average is required on departmental courses, and at least a "C" grade is mandatory o specific courses required in the department.

Sociology Course Descriptions

(Department of Sociology and Anthropology)

OC 105. Introduction to Sociology (3) Science of human society emphasizing physical basis of society, culture, collective behavior, population, and social institutions. Analytical approach stressed.

OC 110. Sociology in Contemporary Life (3) An introductory level course designed to enable students to think about and interpret the social world and events around them. Emphasis will be placed on discovering your social self, understanding social interaction, and interpreting the relationship of the individual with modern industrial society.

OC 200. Sociology of Sport (3) A sociological examination of the rise of sport in contemporary society. Topics such as the social organization of sports, women and sports, sports and violence, inter-scholastic sports and achievement behavior, discrimination and sports, and the future of sports are covered.

OC 205. (ANT 205) Human Societies (3) The comparative study of human society and culture with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions—economy, marriage and kinship, politics and religion—which underlie and support a particular way of life. Comparisons are drawn among huntergatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamic of social process and cultural change are also introduced.

OC 215. Modern Social Problems (3) Social controls and the sociology of revolutionary change. Problems related to race, family, crime, delinquency, and social disorganization.

OC 220. Sociology of Birth and Death (3) The examination of the sociological dimensions of "human entry and exit." The social organizational and cultural dimensions of birth and death will be considered in terms of rites of passage, bureaucratizations, social movements, cultural differences, and historical and contemporary contexts.

OC 230. (ANT 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are viewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival.

OC 305. Population (3) Prerequisite: SOC 105. A study of the changes in size, composition, distribution of population and the dynamics underlying them.

OC 306. Methods of Social Research (3) Prerequisite: SOC 105, STT 205. Introduction to the logic and methods of sociological research. Topics include the logic of social scientific inquiry; the relationship between theory and research; problem formulation; research design; conceptualization and measurement; operationalization; sampling; modes of observation; index and scale construction; introduction to analysis and interpretation of quantitative data; and ethics and politics of social research.

SOC 307. Sociological Data Analysis (2) Prerequisite: SOC 105 and STT 205. Basic instruction in computer management of social science data files, programming techniques with SPSSX, and the conduct of univariate and bivariate analysis and interpretation using instructor-provided data files.

SOC 311. (PLS 311) Techniques of Public Opinion Polling (3) Prerequisite: PLS 211 or consent of instructor. Basic skills in all phases of public opinion polling: issue focus; questionnaire construction; sample selection; interview techniques; elementary data analysis; interpretation and presentation of results. Opinion polls of current political and social issues conducted as class projects to develop these skills.

SOC 315. Urban Sociology (3) Prerequisite: SOC 105. Analysis of the history and development, social organization, and problems of the city.

SOC 316. Human Ecology (3) Prerequisite: SOC 105 and three additional hours in sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities.

SOC 325. American Minority Relations (3) Prerequisite: SOC 105. Analysis of the ascriptive bases of inequality in American society: race, ethnicity, religion and sex. Topics include sociocultural causes and consequences of prejudice and discrimination; and Europe immigration, ethnicity and assimilation.

SOC 326. Collective Behavior and Social Movements (3) Prerequisite: SOC 105. Analysis of social behavior that breaks from existing patterns and expectations, such as riots, crowds, revolution, and social movements.

SOC 333. Sociology of Mental Illness (3) Prerequisite: SOC 105. A sociological examination of the development and distribution of mental health and illness, particularly in the United States. Drawing from the works of relevant writers in the field, such as Scheff and Goffman, the course emphasizes the societal reaction approach to mental illness. Topics to be included are mental illness as deviance, the sociogenesis of mental disorder, and social stratification and mental illness.

SOC 335. The Sociology of Deviant Behavior (3) Prerequisite: SOC 105. The analysis of certain behavior in terms of deviations from norms; the application of sociological and psychological concepts and theory to deviant behavior, and the critical evaluation of non-sociological research and theories.

SOC 336. Sociology of Aging (3) Prerequisite: SOC 105. Introduction to sociological theories and methods used to explain the aging process. Topics include age stratification, adjustment to life events, housing patterns, health, and social policy.

SOC 337. Medical Sociology (3) Prerequisite: SOC 105. A sociocultural analysis of the general area of health and illness. Emphasis is given to understanding the distribution of health and illness in the United States and its impact on the patient status. The course includes a discussion of the organization and use of health care services from a sociological perspective.

SOC 338. Social Epidemiology (3) Prerequisite: SOC 105 or consent of instructor. Methods and substance of social epidemiology; demographics of illness in American society. Case studies linking environmental and behavioral variables to disease incidence examined. Specific attention to the social response to AIDS and other communicable diseases.

SOC 340. Organizations in Modern Society (3) Prerequisite: SOC 105. An introduction to the dynamics of social life in largescale organizations. Topics include organizational social psychology, organizational structure and process, and organization-community relations.

SOC 344. The Sociology of Politics (3) Prerequisite: SOC 105 or PLS 101. Examines political institutions and political behavior from a sociological perspective. Topics include the social and economic origins of political behavior; the organization and distribution of political power and its effects on society, politics and social change.

SOC 345. Sociology of the Family (3) Prerequisite: SOC 105. Origin and development of the family as a social institution from an historical and comparative approach; analysis of forms and functions of the family; socialization, mate selection, procreation.

SOC 346. Sociology of Religion (3) Prerequisite: SOC 105. An analysis of the structure, function and process of religion, emphasizing the reciprocal relation of religion and cultural and religious differentiation and institutionalization.

SOC 347. Sociology of Education (3) Prerequisite: SOC 105. An examination of the socio-cultural factors operating at various levels of the educational process, from classroom to school system to community, in light of the changing roles of the child and education in a complex industrial society.

SOC 348. Sociology of Leisure and the Arts (3) Prerequisite: SOC 105. This course surveys existing theory and research with respect to the concept of leisure. Specific attention is devoted to sociological analyses of trends, differentials, and time expenditures which population categories exhibit in recreational, sporting, and arts activities.

SOC 350. Gender and Society (3) Prerequisite: SOC 105. The differentiation of both ascribed and achieved roles in modern society based on the variable of sex of the individual, conditions which serve to maintain or to weaken the normative patterns, and consideration of some of the consequences of differentiation. The effects of sex-role socialization on political, occupational, and educational behavior, with emphasis placed on stability and change.

SOC 355. Criminology (3) Prerequisite: SOC 105. The nature, variation and causes of crime are studied as aspects of the American culture.

SOC 360. Foundations of Social Thought (3) Prerequisite: SOC 105 and six additional hours in sociology above the introductory level. A review of the significant trends of development in sociological theory with emphasis on the relationship of theory to research.

SOC 365. Social Psychology (3) Prerequisite: SOC 105. A sociological analysis of human social interaction. Topics include symbolic interaction, socialization, interpersonal relations. Focus is on social and cultural influences on individual and group behavior.

SOC 366. Social Change (3) Prerequisite: SOC 105. The study of social and cultural change in community and society with emphasis upon the rate and degree of change, direction of change, mechanism of change, and planning of change.

SOC 375. Juvenile Delinquency (3) Prerequisite: SOC 105. The analysis and description of the problem of juvenile delinquency as it exists in a changing contemporary society.

SOC 385. The community (3) Prerequisite: SOC 105. Structure, process and change in modern communities. Topics include analysis of the concept of community; the community as a social system; major community functions; relationships between the community and larger society; community stratification, power structure and organization.

SOC 386. Sociology of Work and Occupations (3) Prerequisite: SOC 105 and three additional hours in sociology or economics. An analysis of the place of work in society. This course examines occupational structures as the primary link between persons and the larger society. Topics to be included are the growth and development of occupational structure, occupations and technological change, occupations and organizational complexity, and other system features which influence or are influenced by the occupational structure.

SOC 390. Social Structures (3) Prerequisite: SOC 105. The course examines the concept of social structure as differentiated social positions and units and their interrelations, including bases of differentiation and integration. Examines patterns of a variety of social structures—the overall structure and patterned development of society, the structure of culture, the structure of deviance, the structure of interaction—considering consequences and interrelations.

SOC 406. Advanced Social Research Methods (3) Prerequisite: SOC 306, SOCL 306-51. A study of the social survey research process: problem formulation, literature review, instrument development, sample determination, data collection, statistical analysis, and report writing. Requirements include individual research proposals and a class research project.

SOC 415. Power and Privilege (3) Prerequisite: SOC 105 and six additional hours in sociology above the introductory level. Examination of social stratification as the system of distribution of privilege, power and prestige in modern and traditional societies. Discussion of major theories and theorists of stratification; the structure and process of systems of social inequality; the causes, correlates and consequences of socially structured inequality.

SOC 449. Sociology of Law (3) Prerequisite: SOC 105 and junior/senior standing. An analysis of the role of law in society. Special emphasis will be given to the relationship between law and social organization and the relation of sociocultural changes

to substantive and procedural aspects of law. The concept of justice will also be analyzed. Law will be viewed as a collectivistic-individualistic process and as a reflection of sociocultural values.

SOC 460. Contemporary Sociological Thought (3) Prerequisite: SOC 360. Coverage of the major contemporary theoretical approaches in sociology is provided. The development of structuralfunctionalism, positivism, Marxian thought, interactionism, ethnomethodology, and structuralism are analyzed in terms of the structure and purposes of theory.

SOC 490. Senior Project (3) Prerequisite: SOC 105, 306, 406, and senior status. A personal study of a segment of the community will be undertaken by each major. There will be ananalytical paper written after actual data has been acquired preferably through a personal confrontation within an institutional setting.

SOC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

SOC 495. Topical Seminar (1-3) Prerequisite: SOC 105 and consent of instructor. Consideration of special topics not regularly dealt with in regular courses.

SOC 499. Honors Work in Sociology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492; 294 and 494, see explanations on p. 82.

SPANISH

(See Foreign Languages and Literatures)

SPEECH COMMUNICATION

Dr. Weiss, *chairperson.* Dr. Noor Al-Deen, Dr. Pullum, Dr. Rohler, Dr. Tallant, Mr. Trimble.

Requirements for a Concentration in Speech Communication for the B.A. degree: COM 105, 221, 230, 275, 327, 340, 341; ANT 208; ENG 320; P&R 110; PSY 311; and six hours of modern language or computer science language. The collateral area (18 hours) will be determined individually in consultation with the advisor. A grade of "C" or better on all required courses in the concentration.

Speech Communication Course Descriptions

COM 105. Fundamentals of Speech (3) Principles and basic skills in speaking and listening; classroom exercise and discussion.

COM 116. Oral Interpretation of Literature (3) The study and analysis of literature through the medium of oral performance.

COM 170. Intercollegiate Forensics (1) One hour of academic credit each semester (up to eight hours total) for participation in debate and/or individual speaking events on the intercollegiate Forensics Team.

COM 210. Oral Interpretation of Children's Literature (3) Focuses on several methods of performance of children's literature. Storytelling, solo performance and group performance will be covered. Areas of emphasis will be selection of suitable material, cutting of the material and techniques of performance.

COM 220. Interpersonal Communication (3) This course focuses upon the communication process in face-to-face situations. It is designed to improve the everyday communication skills of the student through a greater understanding of the interpersonal process. Emphasis is placed upon the development of interviewing techniques, information acquisition and persuasive dialogues.

COM 221. Group Discussion (3) Prerequisite: COM 105 or consent of instructor. The study of and practice in oral group methodologies, including panel, forum and symposium speaking.

COM 230. Voice and Diction (3) Principles and use of the voice exercises in vocal variety, articulation and pronunciation.

COM 265. Survey of Mass Communication (3) An examination of U.S. radio, television, newspaper, magazines and film. Emphasis on their development, functions, theoretical foundations, present uses, and effects. Special project required.

COM 268. Broadcast Journalism (3) Prerequisite: ENG 102. Principles and basic skills in writing for the broadcast media; includes exercises inside and outside of classroom. Emphasis on broadcast news writing, news coverage, news editing, and news problems and potentials.

COM 270. Parliamentary Procedure (1) Principles and rules governing deliberative assemblies.

COM 275. The Art of Persuasive Speech (3) Prerequisite: COM 105 or consent of instructor. Power of speech as a tool to control thought processes of others in both negative and positive ways.

COM 276. Debate (3) Prerequisite: COM 105, 170, or consent of instructor. Principles of argumentation and style in their application to formal debate; practice in conventional debate form on current national intercollegiate debate resolution.

COM 277. Argumentation (3) Prerequisite: COM 105, P&R 110, or consent of the instructor. Principles of argumentation, including theory and practice. Emphasis on development of argument-analysis skills. Techniques for clear, effective, and reasoned advocacy.

COM 290. Rhetoric of Popular Culture (3) Analysis will focus upon an understanding of the various persuasive influences inherent in modern society. Area of emphasis will include analysis of persuasive appeals in advertising, music, art, movies, theatre, social movements, politics, literature, and sports.

COM 316. Advanced Oral Interpretation (3) Prerequisite: COM 116 or consent of the instructor. Survey of interpretation history and theory; performance emphasis on

such advanced projects as program creation, book reviewing and adapting prose and poetry.

OM 320. Oral Interpretation of Southern Literature (3) Prerequisite: COM 116 or consent of the instructor. The performance of Southern Literature. Focuses primarily on prose, fiction, and humorous essay by contemporary authors including Welty, O'Conner, McCorkle; explores basic and advanced performance techniques.

OM 325. Business and Professional Speaking (3) Prerequisite: COM 105. Public speaking skills in directed experiences especially related to speech communication tasks which accompany the role of a business or professional person. Topics include the delivery of briefings, manuscript speeches, conferences, interviewing, salesmanship, use of electronic extenders and visual aids.

OM 327. Organizational Communication (3) Prerequisite: COM 105. The study of communication in organizations: theories of communication and their applications to organizations.

OM 340. Communication Theory (3) Prerequisite: COM 105 or consent of instructor. The course explores theoretical perspectives concerning how and why people communicate. Emphasis placed on a greater understanding of the human communication process.

OM 341. Rhetorical Theory (3) Prerequisites: COM 105, 340, or consent of instructor. Introduction to the basic classical and contemporary theories of rhetoric from Plato through the present.

OM 345. Speech Writing (3) Prerequisite: COM 105, ENG 102. The theory and practice of speech writing with special emphasis on writing speeches for others.

OM 360. Mass Media Research (3) Prerequisite: COM 265 or consent of instructor. Research techniques of the mass media through application of various methods to broadcast and print media, advertising, and public relations.

OM 365. The Broadcast Regulatory Process (3) Prerequisite: COM 265, 268, or consent of instructor. Survey of broadcast history, law, politics, and regulation with emphasis on the roles of the Federal Communications Commission, the White House, Congress, courts, citizen's groups, and the broadcast industry itself in creating and enforcing broadcast regulations.

OM 390. Intercultural Communication (3) Prerequisite: COM 105, 220, or consent of instructor. Communication factors unique tointeractions between members of different cultures, appropriate rhetorical and practical knowledge about the intercultural communication process, as well as an understanding of international communication.

OM 415. Readers Theatre (3) Prerequisite: COM 116. The application of oral interpretation techniques to group readings. Students will be involved in both technical and performance aspects of production.

COM 421. Communication for Public Relations (3) Prerequisite: Any one of the fol lowing: COM 265, 268, 275, 327, 340, 365, 465 or ENG 202. Principles of publi relations, with special emphasis on those theories and skills relevant to the commu nication functions of businesses and non-profit organizations.

COM 422. Advanced Communication for Public Relations (3) Prerequisite: COM 42 or consent of instructor. Application of public relations skills to the contemporar organization, with emphasis on public relations as a managerial communicatio system. Public relations campaign management, programming, implementation an evaluation are stressed.

COM 450. History of Rhetoric and Public Address (3) A survey of the development c rhetorical principles and style as evidenced by significant historical personalitie and the literary genre of public address.

COM 465. Mass Communication in Society (3) Prerequisite: COM 265. A semina encompassing the development of mass communications, the obligations of th press, radio and television, the government and the right to know, censorshi invasion of privacy and other effects of mass communications.

COM 467. Broadcast Advertising and Audience Analysis (3) Prerequisite: COM 265 c consent of instructor. Broadcast advertising and audiences from a theoretical an practical perspective. Mass communication theories applied in a practical setting a students conduct a major audience analysis for a mass media organization. Include analysis and use of survey/research methodology.

COM 485. Senior Project (3)

COM 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing an consent of the department chairperson.

COM 495. Seminar in Speech Communication (3) Prerequisite: Senior standing an consent of instructor. Special topics in communication which are not dealt with other courses.

COM 498. Internship in Speech Communication (3-6) Prerequisite: Permission speech communication faculty and senior status. A program of work and stu conducted within an agency and/or setting which provides practical experienc with observation and applications of theoretical concepts in speech communicatio Open to qualified students with permission of the speech communication faculty.

COM 499. Honors Work in Communication (2-3) Prerequisite: Senior standin Independent study for honors students.

For 292 and 492; 294 and 494, see explanation of p. 82.

CAMERON SCHOOL OF BUSINESS ADMINISTRATION

orman R. Kaylor, *dean*
enis G. Carter, *associate dean*

The Cameron School of Business Administration of The University of North Carolina at ilmington has planned its courses and curricula to be of use to the graduate in a position responsibility as an owner of an independent business enterprise or as an employee the decision making level in private business or in government and other non-profit ganizations.

The primary function of the Cameron School of Business Administration is to teach udents the basic body of knowledge they will need to enter a career in business government and to promote the development of proficiency in practical application. e academic programs provide graduates with career opportunities in manufacturing d service organizations, marketing and sales, government, accounting firms, banks d other financial institutions. The graduate is also prepared to enter law school and aduate programs in public administration as well as for graduate study in accountancy, siness administration, and economics. As complementary functions, through individual culty efforts and the Center for Business and Economics Services, the Cameron School Business Administration undertakes research in appropriate areas and provides related rvices to business and governmental units.

DEGREE PROGRAMS AND REQUIREMENTS

The B.S. degree is offered in five areas of concentration:

Accountancy	Business Management
Finance	Marketing
Economics	

e B.A. degree with a concentration in economics is offered for those students who want study economics in the liberal arts tradition.

Requirements for admission to the Cameron School of Business Administration are listed page 76. Each applicant must have completed a minimum of 44 semester hours with a mulative grade point average of 2.0 or better, with the following courses completed at e time of application:

ENG 101-102, MAT 111 or 115, *ACG 201, ECN 221.

During the semester of application each applicant must be enrolled in or have com-eted:

MAT 151 or 161, ECN 222, *PDS 217, *ACG 203.

*Students enrolling in the B.A. program in economics are not required to complete ACG 1 or 203 and may substitute STT 205 or 215 for PDS 217.

Students may qualify for the B.S. or B.A. degree by:

(1) successful completion of requirements as stated under Academic Regulations on age 71.

(2) successful completion of the courses designated for the degree program;

(3) attaining a minimum grade point average of 2.0 on all courses attempted in the Cameron School of Business Administration; and

(4) completion of elective courses sufficient to complete a minimum of 124 semester hours of course credit. Electives are to be chosen by the student after consulting with the faculty advisor, with no more than nine semester hours of free electives selected from courses in the Cameron School of Business Administration. Students seeking the B.S. degree with a concentration in accountancy are limited to no more than six semester hours of free electives from courses in the Cameron School of Business Administration.

(5) Students seeking the B.S. degree with a concentration in accountancy must also earn a minimum grade point average of 2.0 on all accounting courses attempted in the Cameron School of Business Administration.

(6) The B.A. degree requires a minimum grade point average of 2.0 on all economics courses attempted in the Cameron School of Business Administration.

ACCOUNTANCY AND BUSINESS LAW

Mr. Appleton, *chairperson.* Dr. Baker, Dr. Courtenay, Mr. Davenport, Mr. Eaglin, Mr. Earney, Dr. Elikai, Mr. Herron, Dr. Kaylor, Dr. Marts, Mr. Roscher, Mrs. Sawyer, Mr. Zeko.

The B.S. degree with a concentration in accountancy provides the student with the analytical foundation of the discipline of accountancy. Included are the special tools and techniques of planning and control using financial and managerial accounting, income taxes, cost analysis, and systems.

Students establish qualifications for careers as professional certified public accountants, and in industrial, governmental, and other positions requiring managerial and analytical skills. The accounting concentration provides an excellent background for graduate and other professional education.

The elements of planning, administration, and control covered in the accounting courses are essential to all areas of business. Many of the courses offered benefit students concentrating in other fields by furnishing a comprehensive background of business procedures and financial relationships. Likewise, students concentrating in accountancy find it advantageous to elect as many courses as possible in other areas of business, especially the quantitative fields.

A graduate of the Cameron School of Business Administration who has completed a concentration in accountancy is permitted by the State Board of Accountancy of North Carolina to write the CPA examination. The student is also qualified by the Institute of Management Accounting to write the CMA examination.

The courses in business law and legal environment provide the study of how the legal environment influences and is influenced by changing social and ethical values. Courses include study of administrative law and the Uniform Commercial Code as well as the organization and role of business enterprises in society and their relationships in government and society.

Requirements for a Concentration in Accountancy for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201-203, ECN 221-222, 324, BLA 361, PDS 217, 313, 314,317, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses: ACG 301-302-401, 305, 404, 407, and two courses from the llowing: ACG 306, 307, 309, 405, 406, and BLA 461. Students planning to write the CPA xamination may wish to extend their study beyond the required 124 semester hours in rder to complete the following courses: ACG 309, 405, 406, BLA 461.

(c) Electives: A minimum of 18 semester hours of elective courses selected after consultion with the student's faculty advisor. At least 12 semester hours of electives must be in ourses outside the Cameron School of Business Administration.

Accountancy Course Descriptions

(Department of Accountancy and Business Law)

CG 201. Financial Accounting (4) Prerequisite: MAT 111. An introduction to the basic framework of accounting for both students concentrating in accountancy and other disciplines. Includes preparation of financial records, working papers, and financial statements, and analysis of the major financial statements with emphasis on the underlying accounting concepts and constraints.

CG 203. Managerial Accounting (3) Prerequisite: ACG 201. An introduction to the concepts and techniques used by management to analyze and interpret accounting data in the organization.

CG 301-302-401. Intermediate Accounting I, II, and III (3-3-3) Prerequisite: ACG 203. Analysis of traditional financial accounting topics and theory. Examines recent developments in accounting measurement and promulgations of the leading professional accounting organizations. ACG 301 emphasizes development of accounting standards and theory, financial statements, current assets and current liabilities. ACG 302 emphasizes plant assets, long-term investments, long-term liabilities, stockholders equity, revenue recognition and income tax allocation. ACG 401 emphasizes pensions and leases, cash flow statements, accounting for changing price levels, financial statement analysis, foreign currency transactions, corporate liquidations and reorganizations, and segment and interim reporting.

CG 305. Cost Accounting (3) Prerequisite: ACG 203. Costs for planning and control, including the role of the accountant in the organization; cost behavior and volume-profit relationships; responsibility accounting; standard costs; flexible budgets; cost structures for control and motivation; and relevant costs for nonroutine decisions.

CG 306. Accounting Information Systems (3) Prerequisite: ACG 203 and PDS 313. Basic concepts of accounting information systems including both manual and computer based systems. Examines transaction processing systems with emphasis on internal controls and documentation, user support systems, and systems development.

G 307. Administrative Accounting and Control (3) Prerequisite: ACG 305 and PDS 314. The controllership function and analytical methods to serve the information needs of decision making and control; advanced topics in cost accounting, forecasting, budget design and preparation, and responsibility accounting.

ACG 309. Accounting for Business Combinations (3) Prerequisite:ACG 302. A study of accounting problems in parent-subsidiary interrelationships, mergers and consolidations, partnerships, and non-profit accounting. Emphasis on consolidated financial statements.

ACG 402. Specialized Accounting Problems (3) Prerequisite: ACG 305, 309, and 401. Advanced study of accounting practice and theory with emphasis on preparation for the CPA examination. Includes study of official pronouncements of the American Institute of Certified Public Accountants and the Financial Accounting Standards Board.

ACG 404. Federal Income Taxes I (3) Prerequisite: ACG 203. Study of federal income taxation of individuals. Includes business expenses and revenues, depreciation, and property transactions and the history and development of taxation.

ACG 405. Federal Income Taxes II (3) Prerequisite: ACG 404. The study of corporate, partnership, estate and trust taxation. Emphasis is on corporation and partnership organization, operations, distributions, liquidation and reorganization.

ACG 406. Non-Profit Organization Accounting (3) Prerequisite: ACG 302. Accounting for not-for-profit organizations including governments, colleges and universities, hospitals, charities, and other not-for-profit organizations. Emphasis is on objectives and preparation of financial statements, the use of managerial reports, and budgetary data.

ACG 407. Auditing (3) Prerequisite: ACG 302. Objectives, standards and procedures involved in examining and reporting on financial statements of business organizations by independent auditors in light of ethical and legal obligations.

ACG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

ACG 498. Accounting Internship (3) Prerequisite: Senior status and consent of faculty supervisor. Involves the application of professional accounting skills required in the academic environment to the role of the practicing professional accountant. The participant will receive practical training and experience under the guidance of the accounting staff of a local business or government organization and a faculty supervisor. Open only to students concentrating in accountancy. Available internships will be filled on a competitive basis.

ACG 499. Honors Work in Accounting (2-3) Prerequisite: Senior standing. Independent work for honors students.

Business Law Course Descriptions

(Department of Accountancy and Business Law)

BLA 361. Legal Environment of Business (3) Prerequisite: Junior or senior standing. Study of the organization and role of business enterprises in society and the relationships in government. Examines how the legal environment is influence

by changing social and ethical values. Topics include agency, antitrust, forms of business organization, environmental regulation, equal opportunity, labor law, product liability, and property rights.

LA 461. Commercial Law (3) Prerequisite: Junior or senior standing. Study of the commercial legal environment in which business enterprises operate. Examines the law of contracts,sales and warranties, security interests, commercial paper, and debtor and creditor rights.

LA 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

LA 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

ECONOMICS AND FINANCE

Dr. Hill, *chairperson.* Dr. S. Bojanic, Dr. Carter, Dr. Comeskey, Dr. Copley, Dr. Farrell, Dr. Hall, Dr. Harriss, Dr. Howell, Dr. Lawson, Mr. McDowell, Dr. Morgan, Dr. Wadman, Dr. alsh.

The economics and finance programs prepare students for careers which emphasize an derstanding of the operation of the economy and the proper choice of policies by both vernment and business enterprises. The economics concentrations represent a more neral area of study, preparing the student to enter government service, industry, or to rsue a graduate program in economics, business, public administration or other social ence disciplines.

The B.S. degree with a concentration in economics is designed to provide orientation of individual and the firm in economic society. The student is required to supplement the dy of economics with a variety of business and accounting courses.

The B.S. degree with a concentration in finance consists of three separate but related as—business finance, investments, and financial institutions. The finance curriculum pares students for graduate study and for careers in corporate financial management, investments and securities business, and the management of banking and nonbank ancial institutions. The generalized applicability of finance and the basic tools of finan- analysis are emphasized in the courses.

The B.A. degree with a concentration in economics is designed for the student who wants study economics in the liberal arts tradition. The study of a wide variety of economics urses is supplemented by a study of history and the social sciences. Both degree grams develop an understanding of contemporary economic problems and institutions d provide a study of economic issues both in an historical setting and under conditions change.

Requirements for a Concentration in Economics for the B.S. degree:
a) Core Requirements: In addition to basic studies requirements, the following courses st be completed: MAT 111-151, ACG 201-203, ECN 221-222, 320, 324, BLA 361, PDS 7, 313, 314, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses:

(1) Students planning study in general economics must complete, in addition to the courses named in (a) above, ECN 321, 322, 328, 495, and two courses selected from the following, one of which must be numbered above 399: ECN 323, 325, 326, 329, 421, 422, 426, 427, and 428.

(2) Students planning study in economics with an emphasis on Finance must complete, in addition to the courses named in (a) above, ECN 321, 322, 495, FIN 330, 436, 437.

(c) Electives: A minimum of 24 semester hours of elective courses selected after consultation with the student's faculty advisor. At least 15 semester hours of electives must be in courses outside the Cameron School of Business Administration.

Requirements for a concentration in finance for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201-203, ECN 221-222, 324, BLA 361, PDS 217, 313, 314, 317, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses: In addition to the courses named in (a) above, students must complete FIN 330, 336, 436, 430 or 437, and two courses selected from the following, one of which must be numbered above 399: FIN 331, 332, 430, 431, 437, 438, 495.

(c) Electives: A minimum of 24 semester hours of elective courses selected after consultation with the student's faculty advisor. At least 15 semester hours of electives must be in courses outside the Cameron School of Business Administration.

Requirements for a concentration in economics for the B.A. degree:

(a) Core Requirements: In addition to basic studies requirements the following courses must be completed: MAT 111-151, PDS 217 or STT 205 or 215, ECN 221-222, 321, 322, 324, 326 or 421, 328, 495, and six additional hours in economics courses numbered above 299.

(b) In addition to the courses named in (a) above, the student must complete 21 semester hours from at least two of the following: anthropology, geography, history, political science, psychology, sociology. A minimum of six hours must be taken in at least two areas, and at least nine hours must be courses numbered above 299.

(c) Electives: A minimum of 31 semester hours of elective courses selected after consultation with the student's faculty advisor.

Economics Course Descriptions

(Department of Economics and Finance)

ECN 125. Survey of Economics (3) An introduction to economics principles for non-business and non-economics majors. Current analysis rather than theoretical analysis is utilized to present and show the relevance of economics principles. (Not open to students who have earned credit for either ECN 221 or ECN 222.)

ECN 221. Principles of Economics—Micro (3) Prerequisite: MAT 111. Analysis of decision-making processes and economic equilibrium for the individual firm and consumer at an introductory level.

ECN 222. Principles of Economics—Macro (3) Prerequisite: ECN 221. Aggregate economic analysis examining the effects of fiscal and monetary policy upon aggregate employment, income and prices at an introductory level.

ECN 320. Managerial Economics (3) Prerequisite: PDS 314. The theory and application of economics principles and methodology to the decision making process under conditions of uncertainty. Includes the following topics: demand theory and analysis; cost and production conditions facing the firm; forecasting; resource allocation and management of inputs; pricing, profit strategies, and market structure; and finance and investment decision making for the firm.

ECN 321. Intermediate Price Theory (3) Prerequisite: MAT 151 and ECN 222. A theoretical analysis of individual consumer and firm behavior and general equilibrium.

ECN 322. National Income Analysis (3) Prerequisite: ECN 321. A theoretical analysis of the determination of aggregate income, aggregate employment, and the average price level and role of monetary and fiscal policy in the determination of such.

ECN 323. Business, Government and Society (3) Prerequisite: ECN 222. A broad study of the role of business enterprises in society and their relationships with government. Examines influence on decision making of changing social values, changing political, legal, and regulatory environments.

ECN 324. Money and Capital Markets (3) Prerequisite: ECN 222. An introduction to the financial and economic environment within which a firm must operate. Analysis of the sources and the cost and availability of funds in a domestic and international setting; analysis of international monetary flows; financial decision making in an integrated world economy.

ECN 325. (EVS 325) Environmental Economics (3) Prerequisite: ECN 125 or 221. Application of economics concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives.

ECN 326. Comparative Economic Systems (3) Prerequisite: ECN 125 or 222. Analysis of economic systems operating under capitalism, socialism, communism, and fascism; institutions and organization of production and government; decision-making; distribution of income; problems of developing nations.

ECN 327. Money and Banking (3) Prerequisite: ECN 222. A theoretical and empirical analysis of the effects of money on aggregate income and employment and the average price level. Analysis of the tools and policy of the Federal Reserve System. An overview of banks and other financial institutions.

ECN 328. Public Finance (3) Prerequisite: ECN 222. Study of state, local, and federal government revenue and expenditures; theory of taxation, tax shifting and incidence; theory of public goods, fiscal neutrality and government regulation; methods of achieving efficiency in government benefit-cost analysis, program budgeting (PPB), and pricing of government services.

ECN 329. Industrial Organization (3) Prerequisite: ECN 222. A theoretical and empirical study of how the structure of industry affects the conduct and performance of the firm; covers government regulation, control and influence in business activity with respect to structure, conduct and performance.

ECN 421. History of Economic Thought (3) Prerequisite: ECN 222. Scientific economic thought and philosophy from ancient to modern times. Open-ended as to dates of time period covered. Primary emphasis is on topics as opposed to schools of thought.

ECN 422. Econometrics (3) Prerequisite: PDS 217 and ECN 321. An introduction to the formalization of economic hypotheses into testable relationships and the application of appropriate statistical techniques. Theoretical aspects are covered, but primary emphasis is on computer application utilizing regression analysis.

ECN 426. International Trade and Finance (3) Prerequisite: ECN 222. A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates and balance of payments problems.

ECN 427. Labor Economics (3) Prerequisite: ECN 222. An analysis of the demand for and the supply of labor at the individual and the aggregate level; labor unions and collective bargaining.

ECN 428. Regional Growth and Development (3) Prerequisite: ECN 222. Theories of subnational or regional economic growth. Measures of regional economic policies to alleviate problems resulting from disparate rates of regional economic growth.

ECN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

ECN 495. Senior Seminar in Economics (3) Prerequisite: ECN 322 and consent of instructor. An examination of current problems in economics organized on a discussion-research basis. The content of the course will vary as changing conditions and economic priorities require the use of new approaches to deal with current issues.

ECN 498. Internship in Economics (1-3) Prerequisite: Senior status and consent of department chairperson. Involves the application of economics concepts in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

ECN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

Finance Course Descriptions

(Department of Economics and Finance)

FIN 235. Personal Finance (3) Study of individual and family financial decisions. Designed to prepare the student to exercise intelligent control over income, expenditures, borrowing, savings and investments. Recommended elective for non-business majors. (Not open to students who have earned credit for FIN 330.)

FIN 330. Principles of Investments (3) Prerequisite: ACG 201 and ECN 222. An introduction to alternative investments, with major emphasis on financial instruments. Practical descriptive material and relevant theoretical applications. Topics include stocks, bonds, and other financial alternatives.

FIN 331. Real Estate (3) Prerequisite: ACG 201 and ECN 222. Principles of property management and practices relating to appraisal, sales, ownership, control, financing, and transfer of real property.

FIN 332. Risk Management and Insurance (3) Prerequisite: ACG 201 and ECN 222. An introduction to the risk management function and to the basic methods used to handle risks facing the business enterprise, families and individuals. Emphasis is on the insurance method of handling risk with study of the concepts underlying insurance, the fundamentals of insurance contracts, and a broad selection of policy coverages in the property and liability, and life and health fields.

FIN 335. Business Finance (3) Prerequisite: ACG 203, PDS 217, and ECN 222. An introduction to the finance function of business enterprise and to the analytical techniques used in making investment and financing decisions.

FIN 336. Capital Budgeting Analysis (3) Prerequisite: FIN 335. The study of the theory and practice of capital expenditure management including investment decisions and their impact on cash flows, business firm valuation, and the capital asset pricing model. Use of cases and financial analysis.

FIN 430. Investment Management (3) Prerequisite: FIN 330 and 335. An analytical approach to the valuation of stocks, bonds and options and the placement of those securities in Markowitz efficient portfolios. Technical and fundamental analysis, market efficiency and valuation methods are examined. Both application and theory are emphasized.

FIN 431. Real Estate Investment Analysis (3) Prerequisite: FIN 335. The decision making process in real estate investment analysis including risk and return, financing alternatives, tax implications, and pricing and development alternatives.

FIN 436. Financial Management (3) Prerequisite: FIN 330 and 336. Financial analysis and decision making in the modern business organization. Theoretical foundations of financial decision making are emphasized, including both working capital and fixed capital requirements.

FIN 437. Commercial Bank Management (3) Prerequisite: ECN 324 and FIN 335. A case study course in the management of commercial banks. Major emphasis on defining the functional areas within the commercial bank system and the associated decision making process.

FIN 438. Commercial Lending and Credit Analysis (3) Prerequisite: FIN 335. An examination of the sources of commercial loans, financial statement analysis, working capital, the elements and purposes of commercial lending policies, the credit analysis decision, and follow-up procedures for commercial lending.

FIN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

FIN 495. Senior Seminar in Finance (3) Prerequisite: FIN 436 and senior standing. An examination of current problems in finance. Course content will vary as new techniques are developed to respond to a dynamic financial environment.

FIN 498. Internship in Finance (1-3) Prerequisite: Senior status and consent of department chairperson. Involves the application of financial concepts in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

FIN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

MANAGEMENT AND MARKETING

Dr. Latham, *chairperson*. Dr. Adams, Dr. A. Anderson, Dr. D. Bojanic, Dr. Engdahl, Dr. Harper, Dr. Hoffman, Dr. Honeycutt, Dr. Howe, Dr. J. Hunt, Dr. T. Hunt, Dr. Keating, Ms. Marshall, Dr. Sherman, Dr. West.

The management and marketing degree programs provide preparation for careers in product and service organizations. Each program of study is based on a broad educational foundation combined with courses in accounting, finance, management, marketing, and economics. Both programs are also designed for students who wish to pursue other professions in legal, governmental, and not-for-profit institutions. Students are permitted some latitude in selecting courses and may choose to concentrate in management or marketing. Within the B.S. degree program with a concentration in business management, the student may elect an emphasis in business management or a program of courses designed to meet the specific interest of the student. The student may elect from such areas as human resource management, organization behavior, small business management, and business information systems and should consider additional electives in computer science and the social sciences.

Requirements for a Concentration in Business Management for the B.S. degree:
(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201-203, ECN 221-222, 324, BLA 361, PDS 217, 313, 314, 317, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses:
(1) Students seeking a study of business management will complete, in addition to the courses named in (a) above, BLA 461, MGT 358, 450 and three courses from the following: MGT 351, 352, 353, 356, 453, 456, 495.
(2) Students seeking a study of business management in an area of particular interest will complete, in addition to the courses named in (a) above, BLA 461, and 15 semester hours in the Cameron School of Business Administration in courses numbered above 299 (except 491 and 498) with prior approval of the dean, Cameron School of Business Administration.

(c) Electives: A minimum of 24 semester hours of elective courses selected after consul-
ion with the student's faculty advisor. At least 15 semester hours of electives must be in
urses outside the Cameron School of Business Administration.

Requirements for a concentration in marketing for the B.S. degree:
(a) Core Requirements: In addition to basic studies requirements, the following courses
ust be completed: MAT 111-151, ACG 201-203, ECN 221-222, 324, BLA 361, PDS 217,
3, 314, 317, MGT 350, 455, FIN 335, MKT 340.
(b) Concentration Courses: In addition to the courses named in (a) above, the following
urses must be completed: MKT 341, 349, 445, and three courses from the following:
KT 344, 346, 347, 442, 447, 448, 495.
(c) Electives: A minimum of 24 semester hours of elective courses selected after consul-
ion with the student's faculty advisor. At least 15 semester hours of electives must be in
urses outside the Cameron School of Business Administration.

Management Course Descriptions

(Department of Management and Marketing)

GT 350. Organization Theory and Behavior (3) Prerequisite: ACG 201 and ECN 221. Study of theories, research and concepts underlying the structure and processes of complex organizations. Emphasis on problem solving issues and applications in organization design, leadership, motivation and interpersonal communications.

GT 351. Business Communications Skills (3) Prerequisite: ENG 102, ACG 201, ECN 221. Fundamentals of business communications with emphasis on preparing formal business reports. Emphasis is on the communication process in management, including primary and secondary research, business writing, and making oral presentations.

GT 352. International Management (3) Prerequisite: ECN 222 and MGT 350. Study of management practices in the international business arena. Emphasis on the necessity of understanding global business interdependencies. Particular attention to developing sensitivity to other cultures, values, customs, and beliefs and their effects on business decisions and practices.

GT 353. Entrepreneurship (3) Prerequisite: ACG 203 and MKT 340. Primary focus on starting a new business. Specific areas include identifying business opportunities, conducting feasibility studies, developing the business plan, evaluating alternative ways of financing new ventures and identifying the appropriate legal form of organization. Purchasing an existing business and acquiring a franchise are also addressed.

GT 356. Human Resource Management (3) Prerequisite: MGT 350. Evaluation of concepts and approaches used in human resource management and development. Study of manpower planning, selection procedures, performance review, compensation and benefits, equal employment/affirmative action factors, and labor relations. Emphasis is on how personnel specialists and operating managers can improve organizational performance.

MGT 358. Organizational Behavior (3) Prerequisite: MGT 350. Application of behavior science concepts in the management of organizations. Emphasis on increasin productivity on the individual, group, and organizational level. Particular attentio directed to analyzing organizations, developing motivational programs, designin enriching jobs, leadership development, and managing organizational change.

MGT 450. Strategic Management (3) Prerequisite: MGT 350. Examination of strateg as an economic and planning process and as a matter of organizational decisio making within a social, political and cultural process. Particular attention directed t examining the increasingly turbulent environment within these contexts.

MGT 453. New Venture Management: (3) Prerequisite: MGT 350, MKT 340, and FIN 335 Examination of the challenges associated with maintaining a high rate of growth i relatively new firms. Emphasis on new product and service development, financia planning and control, and operational aspects of new venture management inclu ing supplier relations, sources of funding, and credit practices.

MGT 455. Business Policy (3) Prerequisite: MGT 350, PDS 317, BLA 361, MKT 340, FI 335. Capstone course integrating the functions and policies of business decisio making at the policy making level of management. Case study method is used.

MGT 456. Employee-Management Relations (3) Prerequisite: MGT 350. Analysis c management techniques for the administration of labor agreements; study of collec tive bargaining and union-management relations; and evaluation of labor relation in union and non-union organizations. Case studies provide realistic experience fo both private and public sector labor relations.

MGT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing an consent of department chairperson.

MGT 495. Senior Seminar (3) Prerequisite: MGT 350 and senior standing. Special topic in management not regularly addressed in other management courses.

MGT 498. Internship in Management (1-3) Prerequisite: Senior standing and conser of faculty supervisor. Involves the application of management knowledge in a "rea world" setting. The participant receives hands-on experience under the joint guid ance of a manager from a business or not-for-profit organization and a facult supervisor.

MGT 499. Honors work in Management (2-3) Prerequisite: Senior standing. Independer work for honors students.

Marketing Course Descriptions

(Department of Management and Marketing)

MKT 340. Principles of Marketing (3) Prerequisite: ACG 201 and ECN 221. Introductio to the concepts, activities and decisions that relate to the marketing function i business and nonbusiness organizations in domestic and international settings Focus on development and implementation of marketing strategies through the us of marketing mix variables of product, price, place, and promotion.

T 341. **Marketing Research (3)** Prerequisite: PDS 217 and MKT 340. The development and utilization of marketing research techniques for decision making. Emphasis on the specification, accumulation, analysis, interpretation and presentation of information to help management understand the environment, identify problems and opportunities, and develop and evaluate courses of marketing action.

T 344. **Distribution Management (3)** Prerequisite: MKT 340. An introduction to physical distribution from an institutional and managerial perspective. Study of channel structure, legal factors, performance measurement, inventory control, and trends in the channel environment. Emphasis on the design and management of a physical distribution system.

T 346. **Retail Management (3)** Prerequisite: MKT 340. Examination of the principles and methods of retailing. Study of social, political, ethical, and economic environments. Emphasis on market segmentation, merchandising, and managerial control.

T 347. **Promotion Management (3)** Prerequisite: MKT 340. The promotion mix, with an emphasis on advertising and sales promotion, as a component of the marketing mix and overall organizational strategy from the perspective of the marketer, advertiser, agency, consumer and public.

T 349. **Consumer Behavior (3)** Prerequisite: MKT 340. Behavioral science concepts and principles and how they contribute to effective and efficient marketing activities from the perspective of the consumer, marketer and public policy maker.

T 442. **International Marketing (3)** Prerequisite: MKT 340. Focus is on the special framework in which international marketing is conducted. Influence of international institutions, culture, stage of economic development, geography and demography are covered. Emphasis on multinational marketing problems and opportunities in an ever changing world.

T 445. **Marketing Management (3)** Prerequisite: MGT 350, MKT 341 and senior standing. Concepts of demand analysis, formulating marketing strategy, establishing policies and procedures, coordinating marketing action, and evaluating performance.

T 447. **Services Marketing (3)** Prerequisite: MKT 340. A study of the marketing of services with emphasis on the distinctions that exist between marketing intangibles and tangible products. The managerial implications and strategies available in services marketing are also examined.

T 448. **Sales Management (3)** Prerequisite: MGT 350 and MKT 340. Focus on developing and maintaining an effective sales organization. Emphasis on the role of the salesperson, motivating the sales force, and designing and implementing selling strategies.

T 491. **Directed Individual Study (1-3)** Prerequisite: Junior or senior standing and consent of department chairperson.

MKT 495. Seminar in Marketing (3) Prerequisite: MKT 341 and senior standing. Specia topics in marketing not regularly addressed in other marketing courses.

MKT 498. Internship in Marketing (1-3) Prerequisite: Senior standing and consent o faculty supervisor. Involves the application of marketing knowledge in a "real world setting. The participant receives hands-on experience under the joint guidance of a manager from a business or a not-for-profit organization and a faculty supervisor.

MKT 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honor students.

PRODUCTION AND DECISION SCIENCES

Dr. J. Anderson, *chairperson*. Dr. Badarinathi, Mr. Burke, Dr. Garris, Dr. Gowan, Ms Honeycutt, Mr. Rosen, Dr. Schell.

The Department of Production and Decision Sciences supports degree programs in th departments of the Cameron School of Business Administration through course offering i the areas of management information systems, production and operations managemen and quantitative analysis. Students pursuing the B.S. degree with a concentration i business management may arrange alternative studies in the production and decision sc ences areas with prior approval of the dean, Cameron School of Business Administration

Production and Decision Sciences Course Descriptions

(Department of Production and Decision Sciences)

PDS 217. Statistical Analysis for Business and Economics (3) Prerequisite: MAT 11 or 115. Classification and presentation of business and economics data, probabilit and expected value, statistical inference, simple linear regression and correlatio analysis and forecasting.

PDS 313. Introduction to Management Information Systems (3) Prerequisite: ACG 20 and MGT 350. Introduction to the nature, role and implementation of informatio systems in organizations. Topics include specification of information requirements i the functional areas of organizations, and implementation considerations importar to both the MIS manager and the non-MIS manager.

PDS 314. Introduction to Management Science (3) Prerequisite: MAT 151, PDS 21 ACG 201, and ECN 222. Deterministic and probabilistic models applied to sup port management decision making. Topics include linear programming, invento control, networks, waiting lines, and simulation.

PDS 315. Management of Database Systems (3) Prerequisite: PDS 217 and 313. Study database structure, development, and implementation. Topics include hierarchica network, and relational database organization; data dictionary; normalization; que ries; and report generation.

PDS 317. Production and Operations Management I (3) Prerequisite: PDS 314 ar MGT 350. Analysis of concepts, tools, and techniques used in production plannir

and control, materials management, inventory control, and labor force management. Particular attention directed to the study of production process alternatives.

DS 318. Advanced Statistical Analysis for Management (3) Prerequisite: PDS 217. Statistical inference as applied to management decision making. Topics include linear and nonlinear regression models, analysis of variance and covariance, time series analysis, experimental design, and nonparametric statistical techniques. Applications require the use of statistical analysis programs on the computer.

DS 319. Quality Control (3) Prerequisite: PDS 317. An introduction to the quantitative and qualitative concepts used in the control of quality, in both the manufacturing and service environments. Particular emphasis placed on the statistical tools used in process control and acceptance sampling, along with extensive computer examples and exercises.

DS 413. Management Information Systems Development (3) Prerequisite: PDS 313. Examination of the systems development life cycle and structured systems analysis and design techniques. Application of selected techniques, including the use of CASE software, through student projects.

DS 414. Introduction to Business Simulation (3) Prerequisite: PDS 317. Introduction to simulation models as tools in the analysis of business problems. Discrete event simulation models and dynamic information feedback models are introduced through the use of a computer simulation language.

DS 415. Decision Support Systems (3) Prerequisite: PDS 413. Examination of the process of specifying and implementing decision support systems in organizations. Topics include an overview of current uses of artificial intelligence and expert systems in the business environment.

DS 417. Production and Operations Management II (3) Prerequisite: PDS 317. Further study in the design, management and control of production systems. Topics include logistics management, capacity planning, scheduling, just-in-time, optimized production techniques and quality assurance. Emphasis on the use of computer to analyze complex production and operations management case problems.

DS 418. Business and Economic Forecasting (3) Prerequisite: PDS 318 and consent of instructor. Development of an approach to forecasting through the study of time-series techniques including moving averages, exponential smoothing, regression, and Box Jenkins.

DS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

DS 498. Business Systems Internship (3) Prerequisite: Senior status and consent of faculty supervisor. Involves the application of quantitative and systems skills developed in the academic environment to problems in a real-world operating environment. The participant will receive practical training and experience under the guidance of the staff of a local business or government organization and a faculty supervisor. Available internships are filled on a competitive basis.

DS 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

SCHOOL OF EDUCATION

Roy E. Harkin, *dean*
Calvin L. Doss, *associate dean*
Robert E. Tyndall, *assistant dean*

The School of Education at The University of North Carolina at Wilmington offers programs of study leading to the Bachelor of Arts degrees in elementary education, middle grades education, and special education and programs leading to secondary (9-12) and special subjects (K-12) teacher certification. In addition, graduate programs in elementary education, reading education, special education, educational administration and supervision and the Master of Arts in Teaching are offered.

Responsibility for the degree and certification programs within the School of Education is shared by the Department of Educational Design and Management and the Department of Curricular Studies.

Students wishing to pursue teacher preparation programs must be formally admitted to the School of Education and to the Teacher Education Program. Admission is required before enrollment in education courses in the upper division (300 and 400 level). Requirements for admission are:

1. Completion of the university requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.
2. Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.
3. Completion of four semesters or two academic years of full-time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale.
4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

EDUCATIONAL DESIGN AND MANAGEMENT

Dr. Ellis, *chairperson*. Dr. Applefield, Dr. Bryan, Dr. Doss, Dr. Earle, Dr. Harkin, Dr. A. Hayes, Dr. Hulon, Dr. Johnston, Dr. Joslin, Dr. Mullendore, Dr. Tyndall, Dr. Wagoner.

The Department of Educational Design and Management provides basic professional education courses for the undergraduate programs in elementary, middle grades, secondary, and special education and is responsible for the program of study leading to the Master of Education degree in educational administration and supervision.

The Master of Education program in educational administration and supervision is described in the Graduate School Catalogue.

CURRICULAR STUDIES

Dr. H. Hayes, *chairperson*. Dr. Andrews, Dr. Bachner, Dr. Bartolome, Dr. Burton, Dr. Huber, Dr. Jones, Dr. LaNunziata, Dr. Lockledge, Dr. Raab, Dr. Thomas, Dr. Walker, Dr. Wright.

The Department of Curricular Studies is responsible for the programs of study leading the Bachelor of Arts degrees in elementary education, middle grades education, and pecial education, the programs leading to secondary (9-12) and special subjects (K-12) acher certification, the programs leading to the Master of Education in elementary ducation, in reading education, and in special education, as well as the Master of Arts Teaching.

The Bachelor of Arts program in elementary education leads to North Carolina teacher ertification in grades kindergarten through six.

The Bachelor of Arts program in middle grades education leads to North Carolina teacher ertification in grades six through nine.

The special education program prepares teachers to serve mildly handicapped children om kindergarten through grade 12 in public schools and in various other service agenes and leads to North Carolina teacher certification in one of three areas of exceptionality: arning disabilities, mental retardation, and behaviorally/emotionally handicapped.

Each degree program is designed to meet North Carolina State Board of Education uidelines for teacher certification and includes recommended courses in basic studies, rofessional education and collateral areas, and a content specialization. Adjustments in rogram requirements are made as guidelines change. All programs offered by the School Education are accredited by the appropriate state, regional, and national accrediting gencies.

The Master of Education programs in elementary education, reading education, and pecial education (cross-categorical) are described in the Graduate School Catalogue.

The Master of Arts in Teaching includes a professional core and academic tracks in iology, chemistry, English, history, and mathematics. The program is described in the raduate School Catalogue.

DEGREE REQUIREMENTS FOR ELEMENTARY EDUCATION

Basic Studies

Courses listed below are selected to meet North Carolina State Board of Education uidelines for elementary teacher certification. They only partially satisfy university basic udies requirements. To complete the university requirements, as listed on pages 77-79 this catalogue, additional courses in either the humanities or natural science and athematics areas will be needed. However, these courses may be taken as part of the cademic concentration.

English Composition (six semester hours)
- ENG 101
- ENG 102

Physical Education (two semester hours)
- PED 101

Humanities (12 hours)
- COM 105
- English Literature
- History
- Philosophy and Religion

Fine Arts (six semester hours)
- Art or Music
- CRA 110

Natural Science and Mathematics (10 semester hours)
(Choose one biological and one physical science. A lab is required.)
Natural Sciences (seven semester hours)
MAT 141 and 142
Social and Behavioral Sciences (six semester hours)
PLS 101
SOC/ANT 205

Professional Core

EDN 200	Teacher, School, and Society
EDN 203	School Learning
EDN 301	Instructional Design
EDN 302	Introduction to Educational Computing
EDN 303	Instructional Technology
EDN 304	Classroom Evaluation and Research
PSY 223	Lifespan Human Development

Professional Education

EDN 319	Individualizing Instruction
EDN 322	The Teaching of Mathematics, (K-6)
EDN 334	Social Studies Curriculum and Instruction, (K-6)
EDN 336	The Teaching of Science and Health, (K-6)
EDN 340	Reading Foundations, (K-9)
EDN 344	Literature in the Elementary School, (K-6)
EDN 348	The Teaching of Communication Arts, (K-6)
HEA 304	Health and Safety in Education, (K-9)
or	
HEA 105	Individual Well-Being

Professional Semester

EDN 410	Seminar in Education, (K-6)
EDN 411	Practicum, (K-6)

Academic Concentration

An academic concentration of thirty semester hours is required. A maximum of six semester hours of basic studies may be included in the academic concentration. Specific course requirements of the various concentrations may be obtained from the Office of the Dean of the School of Education. Academic concentrations may be selected from the following disciplines: anthropology, art, biology, chemistry, drama, English, French, geography, geology, history, marine biology, mathematics, music, philosophy and religion, political science, psychology, sociology, and Spanish.

A grade of "C" or better is required of all courses in the elementary education professional core and professional specialty area. Students may repeat courses in which they earn a grade lower than a "C" only with the permission of the dean of the School of Education.

DEGREE REQUIREMENTS FOR MIDDLE GRADES EDUCATION

Basic Studies

Courses specified below are selected to meet North Carolina State Board of Education uidelines for middle grades teacher certification. They only partially satisfy university asic studies requirements listed on pages 77-79 of this catalogue. To complete university equirements, additional courses in humanities or natural science and mathematics will be eeded. However, such courses may be taken as part of the academic concentration.

- English Composition (six semester hours)
  - ENG 101
  - ENG 102
- Physical Education (two semester hours)
  - PED 101
- Humanities (12 semester hours)
  - COM 105
  - English Literature
  - History
  - Philosophy and Religion
- Fine Arts (six semester hours)
  - One from Art or Music
  - CRA 110
- Natural Science and Mathematics (13 semester hours)
  - Natural Sciences (seven semester hours)
  - (Choose one biological and one physical science. A lab is required.)
  - MAT 141 and 142
- Social and Behavioral Sciences (three semester hours)
  - PLS 101
  - SOC/ANT 205

rofessional Core

DN 200	Teacher, School and Society
DN 203	School Learning
DN 301	Instructional Design
DN 302	Introduction to Educational Computing
DN 303	Instructional Technology
DN 304	Classroom Evaluation and Research
SY 223	Lifespan Human Development

rofessional Education

DN 318	Middle School Programs and Practices
DN 319	Individualizing Instruction
DN 351	Developing Reading Competence in the Middle Grades
EA 105	Individual Well-Being
EA 304	Health and Safety Education, (K-9)

Middle school methods course for academic concentration

A second academic area middle school methods course

Professional Semester

EDN 410	Seminar in Education, (6-9)
EDN 411	Practicum, (6-9)

Academic Concentration

An academic concentration of at least thirty semester hours is required. Specific cours and hour requirements may be obtained from the Office of the Dean of the School of Edu cation. Academic concentrations may be selected from the following disciplines: biology chemistry, English, French, history, geography, geology, mathematics, and Spanish.

A grade of "C" or better is required of all courses in the professional core and professiona specialty area. Students may repeat courses in which they earned a grade of lower tha "C" only with the permission of the dean of the School of Education.

DEGREE REQUIREMENTS FOR SPECIAL EDUCATION

General Requirements in Special Education:

Basic Studies

Students should follow basic studies requirements of The University of North Carolina a Wilmington as outlined on pages 77-79.

Professional Core

EDN 200	Teacher, School, and Society
EDN 203	School Learning
EDN 301	Instructional Design
EDN 302	Introduction to Educational Computing
EDN 303	Instructional Technology
EDN 304	Classroom Evaluation and Research
PSY 223	Lifespan Human Development

Curricular Foundations

EDN 322	Teaching of Mathematics, (K-6)
EDN 340	Reading Foundations, (K-6)

Special Education Foundations

EDN 260	Introduction to Exceptional Children
EDN 367	Behavior Management Techniques
EDN 368	Diagnostic Techniques in Special Education
EDN 369	Prescription Development in Special Education
EDN 374	Special Education Curriculum and Instruction

Area of Emphasis

Students must choose one of the following emphases:

1. Behaviorally/Emotionally Handicapped

EDN 370	Behaviorally Disordered Children and Youth
EDN 371	Programming and Interventions for Behaviorally Disordered Students
EDN 410	Seminar in Education
EDN 411	Practicum

2. Learning Disabilities

EDN 366	Learning Disabled Children and Adolescents
EDN 372	Programming and Interventions for Learning Disabled Students
EDN 410	Seminar in Education
EDN 411	Practicum

3. Mental Retardation

EDN 364	Mental Retardation in School and Society
EDN 373	Programming and Interventions for Mentally Handicapped Students
EDN 410	Seminar in Education
EDN 411	Practicum

Academic Concentration

An academic concentration of thirty semester hours is required. A maximum of six semester hours of basic studies may be included in the academic concentration. Specific course requirements of the various concentrations may be obtained from the Office of the Dean of the School of Education. Academic concentrations may be selected from the following disciplines: anthropology, art, biology, chemistry, drama, English, French, geography, geology, history, marine biology, mathematics, music, philosophy and religion, political science, psychology, sociology, and Spanish.

A grade of "C" or better is required in all courses in the professional core and special education concentration. Students may repeat courses in which they earned a grade lower than "C" only with the permission of the dean of the School of Education.

Teacher Certification Program in Secondary and Special Subjects

Programs leading to teacher certification are offered in the secondary (9-12) fields of biology, chemistry, geology, English,history, mathematics, and physics, and in the special subject (K-12) fields of health, physical education, French, and Spanish. Students who concentrate in history, political science or sociology may fulfill subject matter requirements for social studies certification by completing a minimum of 21-23 semester hours in three social studies areas other than the discipline of major concentration.

Students who concentrate in biology, chemistry, earth science or physics may fulfill requirements for natural science certification by completing 21-23 semester hours in three science areas other than the discipline of major concentration. Students wishing to prepare themselves as secondary or special subject teachers are required to fulfill

degree requirements in an appropriate academic discipline and to complete the following sequence of professional courses:

Pre-Professional Studies

The following courses should be completed before admission to the Teacher Education Program, usually in the sophomore year:

EDN 200	Teacher, School and Society
EDN 203	School Learning
PSY 223	Lifespan Human Development

Professional Studies

Students seeking secondary and special subject certification must complete the "core block" composed of the following courses: (see section below for description of requirements for health and physical education requirements)

EDN 301	Instructional Design
EDN 302	Introduction to Educational Computing
EDN 303	Instructional Technology
EDN 304	Classroom Evaluation and Research
EDN 356	Reading in the Secondary School

And one of the following:

EDN 403	Teaching Practices and Techniques in Secondary English, (9-12)
EDN 404	Teaching Practices and Techniques in Secondary Math, (9-12)
EDN 405	Teaching Practices and Techniques in Secondary Social Studies, (9-12)
EDN 406	Teaching Practices and Techniques in Secondary Science, (9-12)
EDN 407	Teaching Practices and Techniques in Foreign Languages (Spanish and French), (K-12)

The Professional Semester

EDN 408	Instructional Methods
EDN 409	Practicum

Professional Studies - Health and Physical Education

Students pursuing teacher certification in health and physical education will complete the following requirements in addition to those of the specialty area.

Pre-Professional Studies

EDN 200	Teacher, School and Society
EDN 203	School Learning
PSY 223	Lifespan Human Development

Professional Studies

EDN 302	Introduction to Educational Computing
EDN 303	Instructional Technology
EDN 356	Reading in the Secondary School

he Professional Semester

DN 409 Practicum

cademic Concentration

An academic concentration of thirty semester hours is required. A maximum of six semes-r hours of basic studies may be included in the academic concentration. Specific course quirements of the various concentrations may be obtained from the Office of the Dean the School of Education. Academic concentrations may be selected from the following sciplines: anthropology, art, biology, chemistry, drama, English, French, geography, eology, history, marine biology, mathematics, music, philosophy and religion, political ience, psychology, sociology, and Spanish.

Students must take all the professional courses listed above preceding the professional emester and earn a grade of "C" or better before the student teaching semester. Students eeking secondary or special subjects teacher certification must be formally admitted to e Teacher Education Program prior to enrolling in 300 level education courses. Stand-ds for admission are:

(1) Completion of the university requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.
(2) Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.
(3) Completion of four semesters or two academic years of full-time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale.
(4) Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

Education Course Descriptions

DN 105-106. Seminar in Education (1-1) Prerequisite: Permission of instructor. Required of all North Carolina Teaching Fellows during freshman year. Open to others if space is available. An examination of issues and forces related to public education and the profession of teaching in the United States. Topics include political, social, and instructional issues. Emphasis also upon the development of skills essential to academic success. Activities include lectures, discussions, field activities, and reading of selected educational literature. One hour each week.

DN 200. Teacher, School, and Society (3) Introduction to profession of teaching that acquaints prospective teachers with diverse roles of teachers. Focuses on teacher as decision maker; careers in education; social, historical and philosophical foundations of education; governmental and organizational aspects of schools; and current and future trends in American education. Observation skills are developed through field experience. Three hours of small group instruction and a minimum of one hour of off-campus observation each week.

DN 201. School Learning (2) Study of learning in schools. Concerned with processes of human learning, individual difference variables and social and contextual variables significant for school learning. Representative models of learning from behavioristic, cognitive and humanisitic perspectives will be presented with emphasis given to

applications to instructional decision making. Important personality variables (traits) cognitive variables (learning styles) and aptitudes will be examined. Motivational an group process concepts and principles will also be studied.

EDN 205-206. Seminar in Education (1-1) Prerequisite: Permission of instructor. Require of all North Carolina Teaching Fellows during sophomore year. Open to others space is available. An examination of the diverse roles of the professional employe within the organization of public schools in the State of North Carolina, includin demands and expectations of teaching at various grade levels K-12. Topics includ a review of the academic, social, personal, and interpersonal skills required of suc cessful professionals. Current issues and future trends in the field are examine Activities include required field experiences, lectures, discussions, and reading c selected educational literature.

EDN 260. Introduction to Exceptional Children (3) Survey of major categories c exceptionalities including giftedness, mental retardation, hearing impairments, visua impairments, learning disabilities, communication disorders, behavioral/emotiona handicaps, and physical handicaps. Includes study of definitions, characteris tics, etiology, psycho-social implications, and educational intervention for eac exceptionality.

EDN 301. Instructional Design (3) Prerequisites: EDN 200 and EDN 201 as either pre requisite or corequisite and admission to the School of Education. This course i designed to provide the conceptual tools and analytic skills necessary to plan an implement instructional programs. This course will focus on the fundamental compo nents of instructional development for teachers. Topics of study include instructiona theory types of learning, instructional objectives, planning strategies, task analysis organization for instruction, and design of educational systems.

EDN 302. Introduction to Educational Computing (1) Teaches skills in operation c microcomputers and related hardware, the types of educational application and their standards, fundamentals of programming languages and operatin systems, problem-solving in computer operations, network operations, and us of telecommunications hardware and software. Skill in using one high-leve wordprocessing program must be demonstrated. Two class hours each wee plus a minimum of two hours of computer lab work will be required.

EDN 303. Instructional Technology (1) This course will emphasis design, selectio production, and evaluation of materials and their effective integration into an instruc tional unit or module. Basic skills will include graphics (manual and computer display, photography, projection, reprographics, overhead transparencies, audi and video techniques.

EDN 304. Classroom Evaluation and Research (3) Prerequisite: EDN 301. An introduc tion and development of basic skills in evaluation and research. Evaluation topic will include selection and evaluation of instructional resources, design of feedbac systems, measurement, and data organization and interpretation. Research topic will include methodology and utilization of research in the classroom.

EDN 310. School-Community Relations (3) Methods of improving school-communit relations.

DN 311. Student Leadership in Higher Education (1) Develops an understanding of leadership theories and skills and their utilization in practical settings. Topics include: (a) realizing the impact of student leadership, (b) understanding leadership theories, (c) developing a leadership style, (d) improving leadership skills, (e) use of the situational leadership model, and (f) working with a variety of personality types.

DN 318. Middle School Programs and Practices (3) Overview of the conceptual and historic development of programs for students in grades six through nine. Comparison of varied curricular, instructional, and organizational aspects of the middle school movement. Major emphasis on exploring the educational implications of the developmental characteristics of early adolescent learners. Varied approaches to teaming, classroom management and mainstreaming will be investigated. Work will include observations in a variety of settings.

DN 319. Individualizing Instruction (3) Prerequisite: EDN 301. This course will focus on strategies for meeting needs of individuals in the regular classroom. Students will study alternative methods for dealing with pupil differences that have an impact on learning. Characteristics of children with academic, intellectual, social-emotional, physical, cultural and language differences will be examined.

DN 322. The Teaching of Mathematics, (K-6) (3) Prerequisites: EDN 301 and six semester hours of appropriate mathematics. Focus on the curriculum, materials, and methods appropriate for the teaching of mathematics for the kindergarten through sixth grade level. A field-based activity is required.

DN 323. Teaching Mathematics in the Middle Grades, (6-9) (3) Prerequisites: EDN 301 and six hours of mathematics. Focus on the curriculum, materials and methods appropriate for the teaching of mathematics at middle grade levels. A field-based activity is required.

DN 324. Diagnostic Teaching of Mathematics (6-9) (3) Prerequisite: EDN 323. Understanding of psychological and environmental factors that affect learning of school mathematics. Focus on methods and materials appropriate to diagnosis and remediation of mathematics difficulties common at the six through nine level. Awareness of strategies effective for enhancing self-confidence in mathematics learning. A field-based activity is required.

DN 334. Social Studies Curriculum and Instruction, (K-6) (3) Prerequisites: EDN 301 and six hours of social studies content. Overview of the goals of social studies education and how this affects various patterns of organizing curricular content. The implications of learner developmental characteristics for selecting approaches to instruction from history as well as the social and behavioral sciences will be explored. Emphasis on selection and preparation of appropriate materials including the strategies of inquiry, critical thinking, mapping and graphing, simulation, and problem solution. A field-based activity is required.

DN 335. Social Studies Education in the Middle Grades (3) Prerequisite: EDN 301 and six hours of social studies content. Examines the specific ways in which social studies curriculum can be organized to meet the learning needs of middle grades

students. Emphasis on selection and preparation of appropriate materials, identifi cation of instructional procedures, databased decision making and the relevance o social inquiry to the real world. Work will include a field experience and preparatio of an in-depth unit of study suitable for use at this level.

EDN 336. The Teaching of Science and Health, (K-6) (3) Prerequisites: EDN 301 an two science courses. Methods of teaching the biological, earth and physical sci ences and health. Applications of the sciences to classroom experimentation an investigation. Examination of contemporary curricula used at the elementary scho level. Field experiences required.

EDN 337. Inquiry—The Method of Science (3) Prerequisite: A course in science meth ods or the completion of 15 hours toward a concentration or major in scienc or permission of instructor. Assumes initial level competency in curriculum an methods of science. Focuses on conceptualization of and rationale for using inquir method of teaching science. Provides opportunities to acquire and practice skill needed to utilize method and to guide scientific investigation at K-12 levels.

EDN 338. The Teaching of Science, (6-9) (3) Prerequisite: Completion of natural scienc basic studies and EDN 301. Survey of curriculum and methods for teaching scienc in grades 6-9. Focus on processes of scientific inquiry, on topics that integrat learnings across science disciplines, and on the social implications of science an technology. Field experience required.

EDN 340. Reading Foundations, (K-6) (3) Prerequisite: EDN 301. Emphasis on linguis tics and psychological bases of the reading process, stages in the development o reading ability, and sequences of skill acquisition. Students will study models of rea ding instruction for language and literacy learning, the role of the classroom teache of reading, and forces influencing that role. Extensive field experiences required.

EDN 344. Literature in the Elementary School, (K-6) (3) Prerequisite: EDN 340. Th selection and evaluation of literature for elementary school children, including book and other media. Includes exploration of multi-cultural themes and traditions throug literature, and strategies for integrating literature, music, and movement into th elementary curriculum.

EDN 348. The Teaching of Communication Arts, (K-6) (3) Prerequisite: EDN 301 an 340. Study of various approaches to school language instruction. Examination o strategies and methods for promoting growth in language learning in elementar classrooms with emphasis on use of drama and theater activities to enhance learn ing. Includes extensive opportunities to assess, teach, and evaluate all areas o children's language and reading development in public school classrooms.

EDN 351. Developing Reading Competence in the Middle Grades, (6-9) (3) Prerequi site: EDN 301. Develops understanding of reading processes in the broad contex of communication. Presents strategies for fostering and evaluating interest, fluency and skill in reading, both in developmental reading classes and in content subjects Topics include organizational and instructional strategies for the development o reading ability, techniques for motivating and guiding readers, and strategies fo study and comprehension which support learning in all areas of the curriculum.

EDN 355. Language Arts Methods for the Middle Grades, (6-9) (3) Prerequisite: EDN 351. Presents curriculum and methods for developing linquistic and communicative competence in language arts classes in the middle school. Develops understanding of communication processes (listening, speaking, writing, etc.), dialects, and language systems as influences in teacher decision making. Focus on strategics and plan for facilitating and evaluating student oral and written language performance. Field experience required.

EDN 356. Reading in the Secondary School (3) Prerequisite: EDN 301. Required course in the teaching of reading for secondary majors. Basic instructional reading strategies are developed, with emphasis on introducing assignments, improving study skills, and fostering critical thinking. Students identify and learn to teach reading skills specific to varying content areas. Adjusting instruction to students' reading capabilities is stressed.

EDN 364. Mental Retardation in School and Society (3) Examination of the field of mental retardation from an developmental perspective. Study of etiology, definitions, characteristics, and historical and current approaches to treatment of persons with mental retardation in a variety of settings and across the life span. Includes study of all levels of mental retardation. Field experiences required.

EDN 366. Learning Disabled Children and Adolescents (3) Examination of the field of learning disabilities. Emphasis on the concept of learning disabilities, etiology, diagnosis, characteristics, teaching strategies, theory, historical influences, and current trends.

EDN 367. Behavior Management Techniques (3) Prerequisite: EDN 301 or consent of instructor. Designed to develop an understanding of the principles of behavior and their application in planning and implementing various behavior management strategies. Focus will be on observation and measurement of social behavior management techniques. Field experiences required.

EDN 368. Diagnostic Techniques in Special Education (3) Prerequisites: EDN 301 and one of the following: EDN 260, 364, 366 or 370. Examination of concepts and fundamentals of educational assessment. Includes examination of formal and informal techniques appropriate for exceptional students. Includes assessment of intellectual functioning, academic problems, spoken language, learning skills, social-emotional development, early childhood skills, and vocational skills. Field experiences required.

EDN 369. Prescription Development in Special Education (3) Prerequisites: EDN 301 and one of the following: EDN 260, 364, 366 or 370. Development of skill in planning educational programs for exceptional children. Includes writing instructional objectives, selecting appropriate materials and techniques, writing lesson plans, and formulating individualized educational programs. Field experiences required.

EDN 370. Behaviorally Disordered Children and Youth (3) Prerequisites: EDN 301 or consent of the instructor. Designed to examine the wide and complex variety of learners labeled as "behaviorally disordered" or "emotionally disturbed." Topics related to historical, theoretical, etiological, developmental, and symptomological

issues plus diagnosis, identification and service delivery models will be introduced. Program and parent involvement models and current trends and issues will be reviewed. Field experiences required.

EDN 371. Programming and Interventions for Behaviorally Disordered Students (3) Prerequisites: EDN 367 and 370. Examination of problems, issues and practices in developing programs for and educating students with behavior disorders. Emphasis on academic and social needs, major interventions, family involvement, scheduling issues, applied behavior analysis, and systematic/directive teaching of new behaviors. Legal considerations, consultation strategies, and curriculum issues will be reviewed. Field experiences required.

EDN 372. Programming and Interventions for Learning Disabled Students (3) Prerequisite: EDN 366. Study of the educational implications of LD student characteristics. Emphasis will be on needs of LD individuals relevant for instruction; developmental, cognitive, medical, behavioral, and cognitive developmental approaches; programming and interventions for grades K-12; remediation and compensation strategies.

EDN 373. Programming and Interventions for Mentally Handicapped Students (3) Study of intervention strategies for persons with mental retardation. Emphasis will be on programming for persons with mental retardation in community settings including day treatment programs as well as school settings. Field experiences required.

EDN 374. Special Education Curriculum and Instruction (3) To be taken the semester prior to EDN 410 and EDN 411. Study of the curriculum areas and instructional techniques utilized in educational settings for learning disabled, mentally retarded, and behaviorally/emotionally handicapped students. Emphasis on curriculum development processes, design and lesson and unit plans, selections of materials, identification of instructional procedures, and data-based decision making. Field experiences required.

EDN 403. Teaching Practices and Techniques in Secondary English, (9-12) (3) Prerequisite: EDN 301. Development of techniques for teaching in secondary English. Emphasis on curriculum development, classroom management, inquiry, critical thinking and selection of appropriate instructional materials. Successful planning and teaching practices with adaptations for special needs students.

EDN 404. Teaching Practices and Techniques in Secondary Mathematics, (9-12) (3) Prerequisite: EDN 301. Development of techniques for teaching in secondary mathematics. Emphasis on curriculum development, classroom management, inquiry, critical thinking, and selection of appropriate instructional materials. Successful planning and teaching practices with adaptations for special needs students.

EDN 405. Teaching Practices and Techniques in Secondary Social Studies, (9-12) (3) Prerequisite: EDN 301. Development of techniques for teaching in secondary social studies. Emphasis on curriculum development, classroom management, inquiry, critical thinking, and selection of appropriate instructional materials. Successful planning and teaching practices with adaptations for special needs students.

EDN 406. Teaching Practices and Techniques in Secondary Science, (9-12) (3) Prerequisite: EDN 301. Development of techniques for teaching in secondary science. Emphasis on curriculum development, classroom management, inquiry, critical thinking, and selection of appropriate instructional materials. Successful planning and teaching practices with adaptations for special needs students.

EDN 407. Teaching Practices and Techniques in Foreign Languages, (K-12) (Spanish and French) (3) Prerequisite: EDN 301. Development of techniques for teaching in Spanish and French. Emphasis on curriculum development, classroom management, inquiry, critical thinking, and selection of appropriate instructional materials. Successful planning and teaching practices with adaptations for special needs students.

EDN 408. Instructional Methods (3) Corequisite: EDN 409. Prerequisites: All preprofessional core and specialty courses and acceptance into the School of Education. Intensive examination of instructional methods in the student's area of specialization. Activities will be related to the student's practicum assignment, and emphasis will be placed on the development of instructional plans to be implemented in the practicum setting. Areas of specialization: English, French, health, mathematics, physical education, science, social studies, Spanish.

EDN 409. Practicum (12) Corequisite: EDN 408. Prerequisites: As specified for EDN 408. Students will be assigned full-time to practicum sites within their areas of specializations. During the course, students will engage in a variety of supervised instructional activities, assuming increasingly wider responsibility for class instruction. Practica are offered in the areas of specialization listed above under EDN 408.

EDN 410. Seminar in Education (K-6, 6-9, special education) (3) Corequisite: EDN 411. Prerequisites: All courses in the professional core and specialty areas appropriate for the concentration for K-6, 6-9, and special education majors. Designed as a culmination of professional study and an initiation into student teaching and the teaching profession. Provides opportunities to extend and apply understandings of the roles of the teacher as a decision-maker, particularly in the areas of planning, instruction, management, and evaluation.

EDN 411. Practicum, (K-6, 6-9, special education) (12) Corequisite: EDN 410. Prerequisites: As specified for EDN 410. A full-time practicum experience within the area of specialization. Students will engage in a variety of supervised instructional activites, assuming an increasing amount of responsibility for all phases of classroom instruction. Practica are offered in the areas of elementary education (K-6), middle grades education (6-9), and special education.

EDN 412. Extended Practicum (3-6) Prerequisite: Appropriate curriculum and instruction courses and permission of the chairperson of the Department of Curricular Studies. A part-time practicum experience within the appropriate area of certification. Students will engage in supervised instructional activities that extend their understandings and teaching performance to an additional area of preparation. Areas of specialization include elementary, middle grades, special education, and secondary education.

EDN 415. Education Media Design and Production (3) This course will provide students with an understanding of the design principles underlying the production of instructional materials and with the necessary production techniques. Emphasis will be placed upon the production of materials and their effective integration into an instructional unit. Students will design, produce, and evaluate a number of projects using techniques common to media programs in public schools and the authors who have made contributions to this field.

EDN 416. Instructional Applications of Computers (3) Prerequisites: EDN 301 and 302. Designed to develop skills in using computers as tools in instruction and to make judgments about instructional materials designed for use on computers. Topics include: (1) introduction to computing systems, (b) introduction to microcomputer programming languages, (c) authoring languages, (d) judging instructional "software", (e) using computers to manage classroom records, (f) using computers in instruction, and (g) teleprocessing and automated data bases. Activities will include group lectures, demonstrations, and discussions, projects in software designed for classroom management and instruction. The major focus is on microcomputer application.

EDN 430. Preschool Curriculum (3) Prerequisite: EDN 301. Provides students the understandings, skills, and abilities necessary to implement an effective preschool program. Emphasis placed on knowledge of the curriculum content and the effective combinations and correlations of these contents for a preschool program. Activities include lectures, discussions, demonstration, individual, and group projects.

EDN 431. Teaching in the Primary Grades (3) Designed to develop a broad overall view of teaching in the primary grades. The course includes examination of the history, current "state of the art" and possible future of primary education. Focus is on the application of knowledge of child development and learning theories in organizing and implementing the primary school curriculum in an integrated and interdisciplinary fashion. Study of classroom organization and management for effective teaching in the primary grades will be undertaken.

EDN 432. Interdisciplinary Curriculum and Instruction (3) Examines principles of interdisciplinary curriculum and instruction and explores its appropriateness for middle grades and intermediate students. Alternative approaches to designing interdisciplinary curriculum and instruction such as thematic units and exploratory and interest-based study will be examined. Emphasizes the possible linkages among the disciplines, focusing on thinking and communication skills, concepts and problem solving learning, as well as values clarification/resolution.

SCHOOL OF NURSING

Marlene M. Rosenkoetter, *dean*

Bachelor of Science Degree

Dr. Faller, Ms. Graham-Wilson, Dr. Gray, Ms. Horne, Ms. Howlett, Ms. Jackson, Ms. Liebermann, Ms. Lowe, Ms. May, Ms. Montambo, Ms. Steele, Ms. Stone.

The School of Nursing at The University of North Carolina at Wilmington offers a program leading to the Bachelor of Science degree with a concentration in professional nursing. The purpose of this baccalaureate program is to prepare a generalist who possesses the knowledge, skills, and attitudes with which to practice family-centered professional nursing in a variety of current and emerging health care delivery systems. In addition, the program is designed to provide a foundation for graduate nursing education. Through interactions with clients—individual persons, families and communities—and other health care professionals, nursing graduates will contribute toward meeting the wide-ranging needs of the region, state, and the larger community.

Program Objectives

The graduate of The University of North Carolina at Wilmington baccalaureate program in nursing is able to:

(1) Practice family-centered professional nursing based upon a conceptual framework in a variety of settings.

(2) Interact with individuals, families, and communities to promote an environment conducive to health.

(3) Utilize the nursing process in the delivery of health care to individuals, families, and communities.

(4) Base professional practice upon a synthesis of knowledge from social, behavioral, and natural sciences, nursing theory and research.

(5) Demonstrate commitment and accountability to health care consumers and to professional standards.

(6) Function as a self-directed learner who assumes responsibility for continued personal and professional growth.

(7) Assume a leadership role in the provision and coordination of health care through collaborative relationships with other health care professionals.

(8) Influence present and emerging roles of nursing practice to meet the health care needs of a changing society.

(9) Stimulate change within clients and health care delivery systems to more effectively promote the health of the community.

Degree Requirements for Bachelor of Science Degree
Concentration in Nursing
SAMPLE SCHEDULE
FIRST YEAR

Fall Semester

			Hours
ENG	101	English Composition	3
PED	101	Found. of Physical Activity	2
PSY	105	General Psychology	3
MAT	111	Precalculus Mathematics	3
CHM	115	Fund. of General Chemistry	4
TOTAL			15

Spring Semester

			Hours
ENG	102	English Composition	3
SOC	105	Intro. to Sociology	3
CHM	215	Organic/Biologic Chemistry	4
		Humanities electives	6
TOTAL			16

SECOND YEAR

Fall Semester

			Hours
BIO	240	Human Anatomy & Physiology	4
PSY	223	Lifespan Human Development	3
		Fine Arts Elective	3
		Humanities Elective	3
		Free Elective	3
TOTAL			16

Spring Semester

			Hours
BIO	241	Human Anatomy & Physiology	4
BIO	246	Microbiology of Human Diseases	4
SOC	345	Sociology of the Family	3
+NSG	115	Intro. to Contemporary Nursing*	1
		Humanities or Fine Arts Electives**	3
TOTAL			15

Summer Session I

			Hours
NSG	200	Intro. to Nursing Assess/Int. I	2
NSG	200-51	Intro. to Nursing Assess/Int. Laboratory	1
TOTAL			3

Summer Session II

			Hours
NSG	250	Intro. to Nursing Assess/Int. II	2
NSG	250-51	Intro. to Nursing Assess/Int. II Laboratory	1
TOTAL			3

* Can be taken concurrently with NSG 200 (transfer students)

** 12 hours humanities and three hours fine arts, or nine hours humanities and six hours fine arts.

\+ A minimum grade of "C" is required in each nursing course.

THIRD YEAR

Fall Semester			Hours	Spring Semester			Hours
NSG	300	Nursing Process I	5	NSG	350	Nursing Process II	5
NSG	300-51	Nursing Process Laboratory	1 3	NSG	350-51	Nursing Process II Laboratory	3
NSG	310	Interactions in Nursing Prac. I	3	NSG	360	Interactions in Nursing Prac. II	3
NSG	315	Nature of Man & Health in Modern Society	3	STT	210	Intro. to Statistics with Applications in Health Sciences	3
		Free Elective (or senior year)	(3)				
TOTAL			14-17	TOTAL			14

FOURTH YEAR

Fall Semester			Hours	Spring Semester			Hours
NSG	400	Nursing Process III	4	NSG	450	Nursing Process IV	5
NSG	400-51	Nursing Process III Laboratory	3	NSG	450-51	Nursing Process IV Laboratory	3
NSG	410	Interactions in Nursing Practice III	3	NSG	460	Interactions in Nursing Practice IV	3
NSG	415	Research in Nursing	3	NSG	490	Advanced Nursing Practicum	1
						Free Elective (or Junior year)	3
TOTAL			13	TOTAL			12-15

TOTAL HOURS: 57 hours - Concentration in Nursing (46%)
67 hours - Basic Studies and Collateral (54%)

Admission to the School of Nursing is dependent on university admission, recommendation of the Committee for Student Affairs of the School of Nursing, approval of the nursing faculty and meeting admission criteria, including the completion of required prerequisite courses.

Time Limits: Nursing courses must be completed within a consecutive six calendar year period of time.

Ten-Year Rule: Non-nursing courses which are more than ten years old will be evaluated by the School of Nursing for currency and credit.

RN ACCESS Program for Registered Nurses

Prerequisite Courses Hours			Hours
ENG	101	English Composition	3
ENG	102	English Composition	3
MAT	111	Precalculus Mathematics	3
PED	101	Fundamentals of Physical Activity	2
CHM	115	Fundamentals of General Chemistry	4
CHM	215	Organic/Biologic Chemistry	4
BIO	240	Human Anatomy and Physiology	4
BIO	241	Human Anatomy and Physiology	4
BIO	246	Microbiology of Human Diseases	4
PSY	105	General Psychology	3
PSY	223	Lifespan Human Development	3
SOC	105	Introduction to Sociology	3
SOC	345	Sociology of the Family	3
STT	210	Intro. to Statistics with Application in the Health Sciences*	3
		Humanities Electives	9
		Fine Arts Electives	3
		Humanities or Fine Arts Electives	3
		Free Electives*	6
TOTAL PREREQUISITE CREDITS			67 (54%)

* STT 210 and one three-credit free elective may be taken concurrently with nursing courses.

Degree Requirements for Bachelor of Science Degree
Concentration in Nursing
RN ACCESS Program
SAMPLE SCHEDULE*

Summer Session I

			Hours
NSG	219	Interactions in Contemporary Nursing I	3
TOTAL			3

Summer Session II

			Hours
NSG	250	Introduction to Nursing Assessment and Interven. II	2
NSG	250-51	Intro. to Nursing Assessment and Interven. II Lab	1
TOTAL			3

Fall Semester

			Hours
NSG	379	Interactions in Contemporary Nursing II	1
NSG	389	Nursing Process in Contemporary Nursing	3
NSG	389-51	Nursing Process in Contemporary Nursing Lab	3
NSG	410	Interactions in Nursing Practice III	3
NSG	415	Research in Nursing	3
TOTAL			13

Spring Semester

			Hours
NSG	450	Nursing Process IV	5
NSG	450-51	Nursing Process IV Lab	3
NSG	460	Interactions in Nursing Practice IV	3
NSG	490	Advanced Nursing Practicum	1
TOTAL			12

Credit by Placement	26	
Nursing Concentration Credits	31	
Total Nursing Hours	57	(46%)

NOTES

1. Courses numbered above 400 are taken with students in the generic baccalaureate program.

2. Registered nurses admitted to the RN ACCESS Program of the UNCW School of Nursing are required to verify their previous nursing education and experience by achieving a satisfactory score on the National League for Nursing Mobility Profile II tests and a clinical verification examination. Schedules for test dates are available in the office of the Director, RN ACCESS Program. The Nursing Mobility Profile II consists of three tests:

   a. Care of the Adult Client
   b. Care of the Client during Childbearing/Care of the Child
   c. Care of the Client with Mental Disorder

   A fee is charged for these tests.

   A total of 26 semester hours of placement credit will be awarded to registered nurses upon satisfactory completion of all examinations.

3. A part-time sequence is available for the RN ACCESS Program.

4. Additional information can be obtained from the Director, RN ACCESS Program, UNCW, School of Nursing (919) 395-3723.

BACHELOR OF SCIENCE DEGREE

Nursing Course Descriptions

NSG 115. Introduction to Contemporary Nursing (1) Prerequisite: Sophomore status. Open to non-nursing majors with consent of instructor. An overview of the historical development of nursing with discussion of significant persons, issues and events. Nursing education alternatives, various roles of professional nurses in contemporary practice, basic legal/ethical issues, and criteria which differentiate professional practice are described. Introduces the conceptual framework of the UNCW baccalaureate nursing program. One hour each week.

NSG 200. Introduction to Nursing Assessment and Intervention I (2) Prerequisite: Admission to the School of Nursing. Corequisite: NUR 200-51. An introduction to concepts and techniques of professional nursing practice. Includes concepts of nursing process, role, health, illness, communication, selfawareness, growth and development, responsibility and accountability, change, needs, client teaching, leadership, prevention, and nursing research. Selected basic nursing techniques associated with these concepts are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer session).

NSG 200-51. Introduction to Nursing Assessment and Intervention I Laboratory (1) Prerequisite: Admission to the School of Nursing. Corequisite: NUR 200. Provides the opportunity for clinical application of the introductory concepts and techniques of professional nursing practices which are taught in NUR 200. Students apply these concepts with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer session).

NSG 250. Introduction to Nursing Assessment and Interventions II (2) Prerequisite: NUR 200, 200-51 or NUR 219. Corequisite: NUR 250-51. An introduction to the concepts and techniques of health assessment including interviewing and history-taking, developmental assessment, psychosocial assessment, and physical assessment. Nursing process provides the major framework for focusing on assessment of individual adults and identifying opportunities for primary prevention. Assessment techniques are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer session).

NSG 250-51. Introduction to Nursing Assessment and Interventions II Laboratory (1) Prerequisite: NUR 200, 200-51 or NUR 219. Corequisite: NUR 250. Provides the opportunity for clinical application of introductory concepts and techniques of health assessment which are taught in NUR 250. Assessments are performed with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer session).

NSG 300. Nursing Process I (5) Prerequisite: NUR 115, 250, 25051. Corequisite: NUR 300-51. Focuses on utilization of the nursing process with families, incorporating communicationpatterns, family development and the professional nurse's role in primary prevention with families. Basic research finding are incorporated and additional nursing techniques are acquired. Beginning concepts of secondary prevention are introduced. Five hours each week.

NSG 300-51. Nursing Process I Laboratory (3) Prerequisite: NUR 115, 250, 250-51. Corequisite: NUR 300. Provides the opportunity for clinical application of the concepts and techniques which are taught in NUR 300. The nursing process is utilized with families in all phases of the life cycle, focusing on primary prevention. Selected secondary prevention related to screening in healthy populations is implemented. Twelve hours clinical laboratory each week.

NSG 310. Interactions in Nursing Practice I (3) Prerequisite: NUR 250, 250-51. Prerequisite or Corequisite: NUR 300, 300-51. Emphasizes elements of the teaching-learning process and related principles of change, decision-making, communication and assertiveness. Selected literature is reviewed, as a teaching project is implemented with a designated family.

NSG 315. Nature of Man and Health in Modern Society (3) Prerequisite: NUR 115, 250, 250-51. Establishes a foundation for the professional nursing role through an examination of selected historical events, legal and ethical frameworks for practice, standards for nursing, key issues in health care, current issues in nursing, nursing theories, and models of nursing care delivery.

NSG 350. Nursing Process II (5) Prerequisite: NUR 300, 300-51, 310, 315. Corequisite: NUR 350-51. Focuses on utilization of the nursing process with families who have a member in an acute care setting. A foundation is developed for secondary prevention, including pathophysiology, psychopathology, relevant theories and research, and nursing roles and functions. Additional nursing techniques needed for secondary prevention are required.

NSG 350-51. Nursing Process II Laboratory (3) Prerequisite: NUR 300, 300-51, 310, 315. Corequisite: NUR 350. Provides the opportunity for clinical application of the concepts and techniques taught in NUR 350. The nursing process is utilized with families who have a member in an acute care setting, focusing on secondary prevention. Twelve hours clinical laboratory each week.

NSG 360. Interactions in Nursing Practice II (3) Prerequisite: NUR 310, 315. Corequisite: NUR 350, 350-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership, and conflict resolution. A self-inventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed. Teaching learning principles are applied with a group of clients.

NSG 400. Nursing Process III (4) Prerequisite: NUR 350, 350-51, 360. Corequisite: NUR 400-51. Focuses on utilization of the nursing process with families who have a member in a critical care setting and development of a framework for more advanced secondary prevention. Beginning concepts of tertiary prevention are introduced and additional nursing techniques pertaining to advanced secondary prevention are acquired.

NSG 400-51. Nursing Process III Laboratory (3) Prerequisite: NUR 350, 350-51, 360. Corequisite: NUR 400. Provides the opportunity for clinical application of the advanced secondary prevention concepts and techniques which are taught in NUR 400. The nursing process is utilized with families who have a member experiencing a life-threatening illness or crisis. Twelve hours clinical laboratory each week.

NSG 410. Interactions in Nursing Practice III (3) Prerequisite: NUR 350, 350-51, 360. Corequisite: NUR 400, 400-51. Prerequisite or Corequisite: NUR 379, 389, 389-51. Emphasizes elements of community assessment and related principles of epidemiology, health planning, social and political change, environmental management, and levels of prevention. Community resources and data sources are incorporated into the implementation of an assessment for a selected community.

NSG 415. Research in Nursing (3) Prerequisite: STT 210, NUR 350, 350-51, 360. Prerequisite or Corequisite NUR 379, 389, 389-51. Examines research process as applied to nursing. Research terminology, methodology, and applicability of research findings for clinical practice are emphasized. Computer uses and ethical decision-making are incorporated. Principles of research are applied in developing a preliminary proposal for a nursing research project of limited scope.

NSG 450. Nursing Process IV (5) Prerequisite: NUR 400, 400-51, 410 or NUR 389, 389-51, 410. Corequisite: NUR 450-51, 460. Focuses on the utilization of the nursing process with individuals, families, and groups who have and groups who have complex health needs. A conceptual framework for clinical practice based on related beliefs, theories, and research is developed, and provides the foundation for the role of the nurse in tertiary prevention.

NSG 450-51. Nursing Process IV Laboratory (3) Prerequisite: NUR 400, 400-51, 410 or NUR 389, 389-51, 410. Corequisite: NUR 450, 460. Provides the opportunity for the clinical application of concepts and techniques taught in NUR 450 and NUR 460. The nursing process is utilized with individuals, families, and groups who have complex health needs and the students assumes responsibility for coordinating or directing the care of a group of clients. Twelve hours clinical laboratory each week.

NSG 460. Interaction in Nursing Practice IV (3) Prerequisite: NUR 400, 400-51, 410 or NUR 389, 389-51, 410. Corequisite: NUR 450, 450-51. A seminar focusing on nursing leadership and management for the professional nurse. Included are related concepts and theories of organization, change, power and authority, and role development; models of nursing care delivery; legal ramifications of delegation; models of quality assurance; computer applications in nursing management; and transitional issues for the graduate.

NSG 490. Advanced Nursing Practicum (1) Prerequisite: NUR 400, 400-51, 410, 415 or NUR 389, 389-51, 410, 415. Provides the opportunity for clinical application of the nursing process to a selected area of nursing practice as the student integrates the concepts of research, prevention, and change into a clinical project. Emphasis on further development of nursing skills, knowledge and leadership, and establishing collegialrelationships. Four hours clinical practicum each week.

NSG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing; consent of instructor; NUR 300, 300-51, or NUR 389, 389-51.

NSG 495. Selected Topics in Nursing (1-3) Prerequisite: Enrolled in School of Nursing and consent of instructor. Selected topics in nursing.

NSG 499. Honors Work in Nursing (2-3) Prerequisite: Eligibility for honors program; NUR 300, 300-51 or NUR 389, 389-51. Individual study for honors students.

Courses for Registered Nurses Only

NSG 219. Interactions in Contemporary Nursing I (3) Prerequisite: Admission to the RN ACCESS Program in the School of Nursing. An overview of fundamental concepts for professional nursing practice. Emphasizes nursing process, health, illness, communication, responsibility and accountability, leadership, prevention, change, decision-making and research in professional nursing practice. Introduces nursing theories and the conceptual framework of the UNCW baccalaureate Nursing Program. A teaching project is implemented with an individual client. Ten lecture hours per week (summer session).

NSG 379. Interactions in Contemporary Nursing II (1) Prerequisites: NUR 219, 250 and 250-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership and conflict resolution. A selfinventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed.

NSG 389. Nursing Process in Contemporary Nursing (3) Prerequisites: NUR 219, 250, and 250-51. Corequisite: NUR 38951. Focuses on utilization of the nursing process with families in all phases of the life cycle. Incorporates communication patterns, family development and prevention. A clinical framework is developed from relevant theories and research. Nursing roles of career provider, coordinator, client teacher and advocate are explored. Responsibility and accountability for interactions with families are emphasized as the need for change within family and health care delivery systems is identified.

NSG 389-51. Nursing Process in Contemporary Nursing Laboratory (3) Prerequisite: NUR 219, 250, 250-51. Corequisite: NUR 389. Provides the opportunity for clinical application of concepts and techniques taught in NUR 389. The nursing process is utilized with families during all phases of the life cycle in community and acute care setting. Twelve hours clinical laboratory each week.

PROFESSIONAL PROGRAMS

MEDICAL TECHNOLOGY

Advisor: Mrs. Kendrick

UNCW students interested in medical technology have two programs of study from which to choose.

1. A five-year program which includes earning a bachelor's degree with a major in either biology or chemistry and completion of an additional year of training at an accredited hospital.

*2. A four-year program leading to a Bachelor of Science degree with a concentration in medical technology. The first six semesters (90 semester hours) of this program are completed on campus with the final year (12 months) spent in training at an affiliated hospital. The affiliated hospitals are:

   Bowman Gray School of Medicine/North Carolina Baptist Hospital, Winston-Salem, N.C.
   Charlotte Memorial Hospital, Charlotte, N.C.
   Forsyth Memorial Hospital, Winston-Salem, N.C.
   Moses Cone Memorial Hospital, Greensboro, N.C.
   New Hanover Memorial Hospital, Wilmington, N.C.
   Presbyterian Hospital, Charlotte, N.C.

   Upon successful completion of this four-year program, the student will receive the Bachelor of Science degree with a concentration in medical technology.

Completion of the first years of study at UNCW does not assure the student admission to the year of clinical training at a hospital. There is competition for the limited space available; therefore, application to the preferred hospital should be made early in the fall of the last year at UNCW. Such application is the responsibility of the student. Guidance by the faculty advisor should be sought, since entrance requirements may differ at various hospitals.

As a part of the admission process, some hospital facilities require that applicants take the Allied Health Professions Test. This test is given at specified institutions each year. See the advisor about time and place.

***Students majoring in medical technology must file and pay for graduation during the first semester of the junior year. This application is filed in the Office of the Registrar.**

The medical technology curriculum prescribed during the first three years (90 semester hours) at UNCW must include:

1. Basic Studies requirements: 45 semester hours
2. Requirements for a concentration in Medical Technology for the BSMT degree:

BIO 108	Introduction to Medical Technology (1)
BIO 110-111	Principles of Biology (4-4)
BIO 206	and BIO 345 Animal Biology and Animal Physiology (4,4) or BIO 206 and BIO 347 Animal Biology and Cell Physiology (4,4) or BIO 240-241 Human Anatomy and Physiology (4,4)
BIO 341	Clinical Calculations (1)
BIO 371	Human Fungal Diseases (1) or BIO 477 Mycology (4)
BIO 425	Microbiology (4)
BIO 441	Introduction to Immunology (1)
CHM 101-102	General Chemistry (4-4)
CHM 211-212	Organic Chemistry (4-4)
MAT 111	Precalculus Mathematics (3) or MAT 115 Elementary Mathematical Analysis
Recommended elective courses:	
CHM 225	Chemical Applications of Microcomputers (1)
*CHM 235	Quantitative Analysis (4)
BIO 335	Genetics (4) or BIO 235 Genetics in Human Affairs (3)
BIO 465	Biochemistry (3)
BIO 495	Seminar (in related areas) (1)
PHY 101-102	Elementary College Physics (4-4)
STT 215	Introduction to Statistics (3)
CSC 105	Survey of Computer Applications (2)

*Very highly recommended

Choice of elective courses should be made jointly by the student and the medical technology advisor.

During the clinical training year at the affiliated hospital, the final 34 semester hours are earned from the courses listed below. Credit for these courses may not be counted toward any other degree at The University of North Carolina at Wilmington.

Medical Technology Course Descriptions

MT401. Immunology-Serology (2) A study of the innate and adaptive immune response mechanisms in the body and the laboratory methods used to evaluate these responses. Special emphasis on serological techniques.

MT405. Hematology (8) A study of the formation, morphology, and functions of human blood cells, primary and secondary hematological diseases and clinical laboratory tests for diagnosing them; hemostasis and the evaluation of clotting disorders.

MT 407. Immunohematology (4) A study of the clinical transfusion service, including collection and handling of donor blood and its components, blood typing, compatibility testing between donor and recipient blood and between maternal and fetal blood, and identification of factors responsible for incompatibilities.

MT412. Clinical Microbiology (8) A study of the medically important bacteria, fungi, viruses, parasites, and associated infectious diseases; special emphasis on the study of appropriate clinical specimens for isolation and identification of microorganisms involved in the infectious process and on testing these isolates for antibiotic susceptibility.

MT414. Clinical Microscopy (2) Chemical and microscopic study of urine and other body fluids in health and disease, microscopic analysis of urinary sediment, and study of renal physiology.

MT420. Clinical Chemistry (8-10) Study of the biochemical analyses of blood and other body fluids to evaluate the enzymes,hormones, electrolytes, drugs, and other important chemicals in the body; use and maintenance of sophisticated instrumentation and quality control.

MT490. Special Topics in the Clinical Laboratory Sciences (1-2)

NURSING

Advisors: Ms. Lowe, Ms. Stone

The university provides a four-year program leading to a Bachelor of Science degree with a concentration in nursing. Upon successful completion of the program and the recommendation of the faculty, graduates are eligible to write the licensure examination for registered nurses.

For further information on the Nursing Program, refer to the section of this catalogue which describes School of Nursing programs, requirements, and course offerings.

THE TEACHER EDUCATION PROGRAM

The Teacher Education Program at The University of North Carolina at Wilmington stresses a broad education base, a sound subject matter preparation, and an appropriate emphasis on professional education to meet state certification requirements and to give the prospective teacher confidence.

All students who expect to follow the Teacher Education Program must be formally admitted into the program according to policy established by the University Council on Teacher Education. To be eligible for admission, students must have completed four semesters or two academic years of full-time college study of completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale, have completed the university basic skills requirements in English and mathematics and a natural science laboratory course with a grade of a least "C" in each course, have completed EDN 200 Teacher, School and Society, with a grade of "C" or better, and have passing scores on the teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

The university provides degree certification programs for elementary, middle grades, secondary, and special education teachers. For further information, refer to the section of this catalogue which describes School of Education programs, requirements, and course offerings.

RE-PROFESSIONAL PROGRAMS

RE-AGRICULTURE AND PRE-FORESTRY

Advisor: Dr. Sieren

Pre-professional programs in forestry and agriculture are arranged which enable students transfer to schools offering professional training in the two fields. The programs are esigned to meet the requirements and recommendations of the professional schools and udents should plan their programs in consultation with the pre-agriculture or pre-forestry dvisor.

LLIED HEALTH

Advisors: In General College Advising Center

The allied health program provides a common curriculum during the freshman year r all students (except nursing) interested in health-related careers, e.g., medicine, harmacy, etc.

rst Semester

NG	101	Freshman Composition
AT	111	Pre-Calculus Math (or higher, e.g., MAT 115 or 161)
HM	101	General Chemistry
O	110	Principles of Biology or other biology core course, e.g., BIO 205 or 206
		Basic Studies Course

econd Semester

NG	102	Freshman Composition
HM	102	General Chemistry
O	111	Principles of Biology or other Biology core course
		Basic Studies courses

RE-ENGINEERING

Advisors: In General College Advising Center

The university offers courses in pre-engineering for students who may transfer to a pecialized engineering school after one or two years.

General Requirements: MAT 161 (students with insufficient background may begin with AT 115 or even MAT 111),162, 261, 361; CHM 101, 102; CSC 111 or 121 (see advisor); GN 111; PHY 201, 202; ENG 101,102; ECN 221; plus humanities and social & behavioral ciences courses designed to meet graduation requirements at the university to which one intending to transfer (see advisor).

PED 101 (PED 102 is not required for graduation; however, four semesters of physica education are required to graduate from N.C. State University).

Specific Requirements:

Chemical Engineering: CHM 311, 312

Civil Engineering: GLY 101; EGN 211, 212; Civil Engineering students should alsc consider GGY 320

Electrical Engineering: see advisor.

PRE-LAW

Advisor: Dr. James Dixon

Students who plan to prepare for law school may select a major in any discipline tha fulfills the requirements for a baccalaureate degree at UNCW. In developing a pre-law program, the student should be aware of the recommendation of the Association of Ameri can Law Schools, which describes the basic skills and insights it believes fundamental tc the later attainment of legal competence. These are (a) comprehension and expression ir words; (b) critical understanding of human institutions and values with which the law deals and (c) creative power in thinking. In order to develop these capacities, the associatior recommends apre-legal education of "the broadest scope." To accomplish these goals The University of North Carolina at Wilmington offers a wide range of pre-law courses Although political science and business are frequently selected by pre-law students as their major, economics, history, sociology and others are sometimes selected. Regardless of the area of concentration, the pre-law student should be zealous in the selection c electives that will facilitate critical understanding of economic, political and social insti tutions. Since a lawyer must be able to communicate effectively, the pre-law studen is well-advised to lay special emphasis on communicative skills. Also a knowledge c elementary accounting is highly recommended.

Finally, the pre-law student should remember that the quality of undergraduate instructior is more important than the subject matter area. The Association of American Law School recommends the selection of courses which require the greatest preparation and intel lectual discipline. "The best trained applicant for lawschool," states the associatior "is the student who has studied under teachers who have inspired, challenged, anc pressed him."

All candidates for law school should apply in time to ensure that their completed file i available by January 1 of the year they plan to enter. This means that they should registe for either the June or September administration of the Law School Admissions Test anc for the Law School Data Assembly Service. The LSAT and the LSDAS are explained full in the Law School Admission Bulletin which is available in the Department of Politica Science. Additional information and advice may be secured from the pre-law advisor i the Department of Political Science.

RE-MEDICINE, PRE-DENTISTRY, AND PRE-OPTOMETRY

Advisor: Dr. Ned H. Martin

The University of North Carolina at Wilmington offers an excellent opportunity to students siring preprofessional training in dentistry, medicine, or optometry. Although specific quirements may vary among various schools, all emphasize core courses in biology, emistry, mathematics, and physics. These courses could be incorporated in almost y major, and students should give consideration to a major which they find interesting d in which they feel confident. Students majoring in the natural sciences should have broad background in the humanities and social sciences areas. Most medical and ntal schools recommend that students receive a bachelor's degree (B.A. or B.S.) before mission. While planning their curriculum, students should keep in mind the graduation quirements which include a total of 124 credit hours, the basic studies requirements, d the requirements of their chosen area of concentration. Pre-medicine, pre-dentistry, d pre-optometry are not majors; however, there are B.A. degree programs in biological ences, in chemistry, and in physics with an emphasis in the pre-medical sciences.

n addition to the required core courses, almost all medical schools require taking the edical College Admission Test (MCAT), dental schools require taking the Dental Admis- n Test (DAT),and optometry schools require taking the Optometry Admission Test(OAT) or to consideration for admission. Scores on these tests constitute an important part the admission criteria. Students usually take these tests during their junior or early nior year.

High academic achievements should be coupled with extracurricular activities as most ofessional schools prefer students who are well-rounded.

equired Courses

The following courses fulfill the minimum requirements of a large number of medical and ntal schools.

General Chemistry (CHM 101-102 with labs)
Organic Chemistry (CHM 211-212 with labs)
Principles of Biology (BIO 110-111)
Animal Biology (BIO 206)
Physics (PHY 101-102 or 201-202)
Precalculus Mathematics (MAT 111-112 or 115)

dditional Recommended Courses

Comparative Vertebrate Anatomy (BIO 315)
Quantitative Analysis (CHM 235 with lab)
Calculus (MAT 161-162)
Biochemistry (BIO 465 or CHM 465)
Medicinal Chemistry (CHM 417)
Animal Physiology (BIO 345)
Advanced Organic Chemistry (CHM 415)
Vertebrate Embryology (BIO 316)
Genetics (BIO 335 or 235)
Molecular Genetics (BIO 435)
Physical Chemistry (CHM 325 or 321-322)
Molecular Biology of the Cell (BIO 347)
Microbiology (BIO 425)
Drugs and Behavior (PSY 245)
Behavioral Medicine (PSY 352)

The pre-medical advisor helps students with curricular planning, academic progress preparation for admission tests, and with application for admission to professional schools The Pre-medical Sciences Advisory Committee composes a consensus evaluation of eac applicant to medical science profession schools. Students interested in a career in th health sciences should consult the advisor for additional information as early as possibl in their academic programs.

PRE-PHARMACY

Advisor: Dr. Sayed

Students interested in careers in pharmacy should consult with the pre-pharmacy adv sor before arranging their academic schedules. Basic coursework in biology, chemistry physics, and mathematics is required, as well as additional studies in the social science and humanities in the two-year pre-pharmacy program. Students should arrange throug their advisor to take the Pharmacy College Admission Test (PCAT) in November of the second year. Applications to pharmacy schools should be made in the fall or winter of th second year.

PRE-PHYSICAL THERAPY

Advisor: Dr. Stokes

The university offers courses in pre-physical therapy for students who wish to apply to specialized physical therapy program. The program of study outlined below is designe to meet minimum requirements at UNC-Chapel Hill.
General Requirements: foreign language through 201; ENG 101 and 102; MAT 115 an STT 215 or MAT 161; CHM 101 and 102 with labs; BIO 105 or 206 and 240 with labs PHY 101 with lab; two courses in social science; one course in philosophy; one course i literature; one course in fine arts; two courses in history; PSY 105; three elective courses two physical education activities courses.

All the above courses must be completed by the end of the spring semester prior t fall entrance, except one elective which may be taken during the first session of summe school. For application requirements to University of North Carolina at Chapel Hill or to Eas Carolina University, see advisor.

PRE-VETERINARY MEDICINE

Advisor: Dr. Fugler

The student interested in applying to a school of veterinary medicine may complete basi requirements for admission at The University of North Carolina at Wilmington. Specialize courses not offered at this institution must be taken elsewhere. The only school of veter nary medicine in North Carolina is located at North Carolina State University in Raleigh. Students planning to pursue a career in veterinary medicine should consult with the ad visor to plan the program of study.

SPECIAL PROGRAMS

INTERNATIONAL PROGRAMS

The Office of International Programs was established at The University of North Carolina at Wilmington to represent its commitment to international education. The office has responsibility for coordinating area studies programs, faculty and student exchange programs, and other international activities at the university. The goal is to expand and strengthen international ties among individuals, units, and programs on campus and to encourage the exchange and flow of ideas and information so crucial for the development of global knowledge and awareness. Further information can be obtained by contacting the Director of International Programs in James Hall.

MARINE SCIENCES

Marine science activity at The University of North Carolina at Wilmington consists of instructional and research programs on the university's main campus as well as specialized research activities associated with its Center for Marine Science Research at Wrightsville Beach.

The programs in marine sciences on the university's main campus consist of a marine biology curriculum leading to the B.S.degree, a marine biology curriculum leading to the M.S. degree, and a Faculty Marine Science Research Program.

MARINE BIOLOGY CURRICULUM

The UNCW marine biology curriculum is a unique baccalaureate program in the university system. It includes a strong foundation of biology with an emphasis in marine biology at the junior and senior levels. Full use is made of the natural laboratory provided by the adjacent Atlantic Ocean through extensive field work in many marine biology courses. Approved collateral requirements include marine-oriented courses in mathematics, physics, chemistry and the earth sciences. The curriculum is flexible enough to meet the individual needs of the student enabling preparation for graduate studies or for teaching and research careers available to one with the baccalaureate degree. Requirements for the B.S. degree in marine biology are listed under biological sciences in the degree program requirements section of this catalogue.

MARINE BIOLOGY GRADUATE PROGRAM

The graduate program leading to the Master of Science degree in marine biology includes three areas of specialization: marine biology, biological oceanography, and coastal biology. Each of these tracks is designed to provide the necessary latitude to allow students to develop programs of study appropriate to their needs. Further information is given in the graduate catalogue.

CENTER FOR MARINE SCIENCE RESEARCH

The Center for Marine Science Research at The University of North Carolina at Wilmington is dedicated to providing an environment that fosters a multidisciplinary approach to questions in basic marine research. The mission of the center is to promote basic and applied research in the fields of oceanography, coastal and wetland studies, marine biomedical and environmental physiology, and marine biotechnology and aquaculture. Faculty members conducting marine science research in the departments of biological sciences, chemistry and earth sciences participate in this program.

The center fosters research programs of the highest quality and thereby enhances the educational experience provided by The University of North Carolina at Wilmington for both undergraduate and graduate students in marine science.

The center's primary facilities are located on a four-acre tract near the Intracoastal Waterway at Wrightsville Beach. Encompassing 16,000 square feet, these facilities house fourteen research laboratories, various science and administrative offices, a video equipment/editing room, a fully equipped machine tool shop, an aquatic specimens holding room, a seminar/conference room and a USDA licensed animal facility. Additional laboratory space is available for research requiring constant flow-through seawater.

The center maintains eight research vessels ranging in size from thirteen to twenty-two feet and specialized equipment including a Superphantom Remotely Operated Vehicle, a low temperature aquarium room, an atomic absorption spectrophotometer, and an extensive microscopy capability including transmission electron, inverted, phase-contrast, and confocal tandem scanning.

The Center for Marine Science Research serves as host for the NOAA sponsored National Undersea Research Center for the Southeastern United States. Based upon competitive proposals, NURC annually supports fisheries management, ocean floor processes, and other research projects from the Gulf of Maine to the Gulf of Mexico.

ENVIRONMENTAL STUDIES CURRICULUM

The environmental studies curriculum emphasizes the importance of multidisciplinary approaches in the study of environmental problems, particularly those dealing with the marine environment. The curriculum exposes students to a broad range of analytical procedures in the natural and social sciences, including an environmental impact seminar, and an area of specialization consisting of course work within approved disciplines. Those who wish to emphasize marine science may do so by electing an approved sequence of courses in marine science. Other available concentrations include: biology, chemistry, earth sciences, economics, mathematics, physics, political science, psychology, sociology and anthropology. Requirements for the B.A. degree in environmental studies are listed in the degree program requirements section of this catalogue.

FIELD EXPERIENCE IN BIOLOGY

The Department of Biological Sciences offers a summer field experience in various biological disciplines at selected areas within and outside the continental United States. Participating students may conduct individual or group research, with faculty guidance, on both marine and terrestrial organisms. Research already has been conducted in such places as the Florida Keys, the Bahamas, and parts of Central and South America.

ARMY ROTC

The Army Reserve Officer's Training Corps at The University of North Carolina at Wilmington provides men and women, who meet the physical and mental requirements, the opportunity to become officers in the U.S. Army on active duty or in the Army National Guard or U.S. Army Reserve.

Current undergraduate, graduate and transfer students are eligible. All college disciplines are accepted. Students may enter the program at almost any time during their study at UNCW. The four programs offered include the Scholarship Program, the Four-Year and Two-Year Programs, and the Simultaneous Membership Program with the Army National Guard or Reserves.

SUMMER SESSIONS

The Summer Sessions constitute an integral part of the university's academic year. Students may take advantage of several unique programs related to the marine environment and other interesting subject areas. A variety of courses is offered for students who wish to accelerate their progress toward the baccalaureate degree, to supplement the academic load carried during the regular terms, or to removed deficiencies. During the summer sessions, undergraduate students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. In addition, public school teachers may wish to renew or change fields of certification or pursue a program of graduate studies in the School of Education.

Further information concerning the summer sessions may be obtained by contacting the director of summer sessions.

OFFICE OF SPECIAL PROGRAMS

The Office of Special Programs plays a major role in fulfilling the UNC system's goal to make its resources and expertise available to the public through community services, consulting and technical assistance. Its mission centers on a "service" concept and programs are designed to cater to the needs of the community and state. These vary and are outlined under the headings of public service, conference hosting, and extension.

PUBLIC SERVICE PROGRAMS

Public service programs are presented to raise awareness of events that affect daily life or contribute to personal enrichment. These non-academic activities include guest speakers, discussion groups, short courses, workshops and conferences covering topics ranging from local problems to international affairs.

A variety of short courses, conferences, and workshops are also specifically designed for businesses, industries and professionals. University faculty and other qualified individuals conduct programs in communications, management, planning, supervision, small business administration or other similar topics. Faculty from the Cameron School of Business Administration conduct courses in business as well as a comprehensive series designed specifically for certified public accountants.

The university also assists school systems with programs and courses for professional improvement of teachers. Courses are designed to meet certification and renewal requirements and/or provide general training for teachers and administrators.

As another dimension of public service, the Office of Special Programs also assists community groups with scheduling university facilities for meetings, seminars and other programs.

CONFERENCE HOSTING

Because the university is vitally interested in assisting both the general public and organizations, the Office of Special Programs provides conference hosting for a wide variety of groups whose mission coincides with the UNC system. Comprehensive services are "tailor-made" according to the needs of each group and can encompass meeting space, housing accommodations, food services, registrations or billing. These conferences, for groups ranging from 20 to 800 persons, can be for credit or noncredit, meeting for one day or many weeks. Special emphasis is given to recruiting non-profit groups with training/education purposes.

EXTENSION COURSES

University extension (academic) courses are offered on the freshman and sophomore levels at Bladen Community College in Dublin and Sampson Community College in Clinton, North Carolina. The community colleges recruit and enroll students who are high school graduates or the equivalent. Students enrolled in the program who wish to become degree candidates at the university must apply and meet regular admission requirements for freshmen or transfer students.

Additional extension offerings also include undergraduate and graduate courses in the field of education at off-campus sites. Utilizing faculty from the School of Education, these courses meet the staff development and/or graduate education requirements of local teachers.

Extension registrations are received by the Office of Special Programs while requests for transcripts should be sent to the registrar of The University of North Carolina at Wilmington.

Further information concerning all programs may be obtained by contacting the director of special programs.

SCIENCE AND MATHEMATICS EDUCATION CENTER

The Science and Mathematics Education Center at UNCW is a member of the University of North Carolina Mathematics and Science Education Network. The center offers a wide range of professional development programs for inservice middle school and high school mathematics and science teachers. Through center sponsored seminars, workshops, and courses, teachers can achieve initial certification in science or mathematics, renew existing certificates, or earn credit toward a graduate degree.

Information concerning upcoming programs may be obtained by contacting the director of the Science and Mathematics Education Center.

FACULTY

Sheila Anne Adams, *associate professor of management,* B.S., M.B.A., University of Nevada-Reno; Ph.D., University of Washington.

Louis Henry Adcock, *professor of chemistry,* B.S., M.A., Duke University; Ph.D., Louisiana State University.

Gur Saran Adhar, *assistant professor of mathematical sciences,* B.Sc., Agra University, India; M.B.A., Indian Institute of Management, Bangalore, India; M.S., Ph.D., University of Maryland.

Michael Ulrich Affemann, *lecturer in psychology,* B.A., St. John's University; M.A., University of Minnesota, Antioch University: Ph.D., University of Wyoming.

Syed Shahzad Ahmad, *assistant professor of political science,* B.A., M.A., Aligarh University; Ph.D., University of Tennessee.

William Franklin Ainsley, Jr., *professor of geography,* A.B., M.A., University of North Carolina at Chapel Hill; M.Div., Southeastern Baptist Theological Seminary; Ph.D., University of North Carolina at Chapel Hill.

Moorad Alexanian, *professor of physics,* B.S., University of Rhode Island; M.S., Ph.D., Indiana University.

David Bruce Allen, *lecturer in physical education,* B.S., M.S., Springfield College.

Thomas Earl Allen, *professor of physical education,* A.B., M.Ed., University of North Carolina at Chapel Hill; Ph.D., Florida State University.

Walser H. Allen, *associate professor of history,* B.A., Moravian College; M.Div., Moravian Theological Seminary; M.A., University of North Carolina at Chapel Hill.

Ferenc Altrichter, *associate professor of philosophy and religion,* B.A., B.S., M.A., M.S., Eotvos Lorand University of Budapest; Ph.D., Hungarian Academy of Sciences.

Moshe Amon, *associate professor of religion,* B.A., The Hebrew University, Israel; Ph.D., Claremont Graduate School.

Arvid Asa Anderson, *associate professor of marketing,* B.B.A., M.B.A., Ph.D., The University of Texas at Austin.

Elizabeth T. Anderson, *adjunct lecturer in medical technology,* B.A., University of North Carolina at Greensboro; B.A., BowmanGray School of Medical Technology; MT (ASCP).

John Michael Anderson, *associate professor of management science,* B.S., United States Naval Academy; A.B., University of North Carolina at Wilmington; M.B.A., East Carolina University; Ph.D., North Carolina State University.

David Michael Andrews, *associate professor of science education and adunct assistant professor of biology,* B.A., Southern Connecticut State University; M.Ed., Ed.D., University of Maine at Orono.

James Milton Applefield, *associate professor of education,* B.A., University of North Carolina at Chapel Hill; M.A., Emory University; M.Ed., University of Georgia, Ph.D., Georgia State University.

Pauline F. Applefield, *assistant professor of psychology,* B.A., Bethany College; M.S., Ph.D., Pennsylvania State University.

Robert W. Appleton, *associate professor of accountancy,* B.S.,Belmont College; M.B.A., Memphis State University; CPA.

Saul Bachner, *professor of education,* B.A., M.Ed., Ph.D., Wayne State University.

Ravija Badarinathi, *associate professor of management science,* B.S., M.S., Allahabad University; Ph.D., University of Georgia.

Kristin Szylvian Bailey, *assistant professor of history,* B.A., University of Lowell; M.A., Duquesne University; Ph.D., Carnegie Mellon University.

Jack D. Baker, *associate professor of accountancy,* B.A., University of Colorado; M.S. Ph.D., University of Missouri at Columbia; CPA.

Timothy Alan Ballard, *assistant professor of biology,* B.A., Appalachian State University; Ph.D., Bowman Gray School of Medicine of Wake Forest University.

Paz Irabagon Bartolome, *professor of education,* B.S., E. Ed., Philippine Normal; M.Ed., Miami University; Ph.D., Ohio State University.

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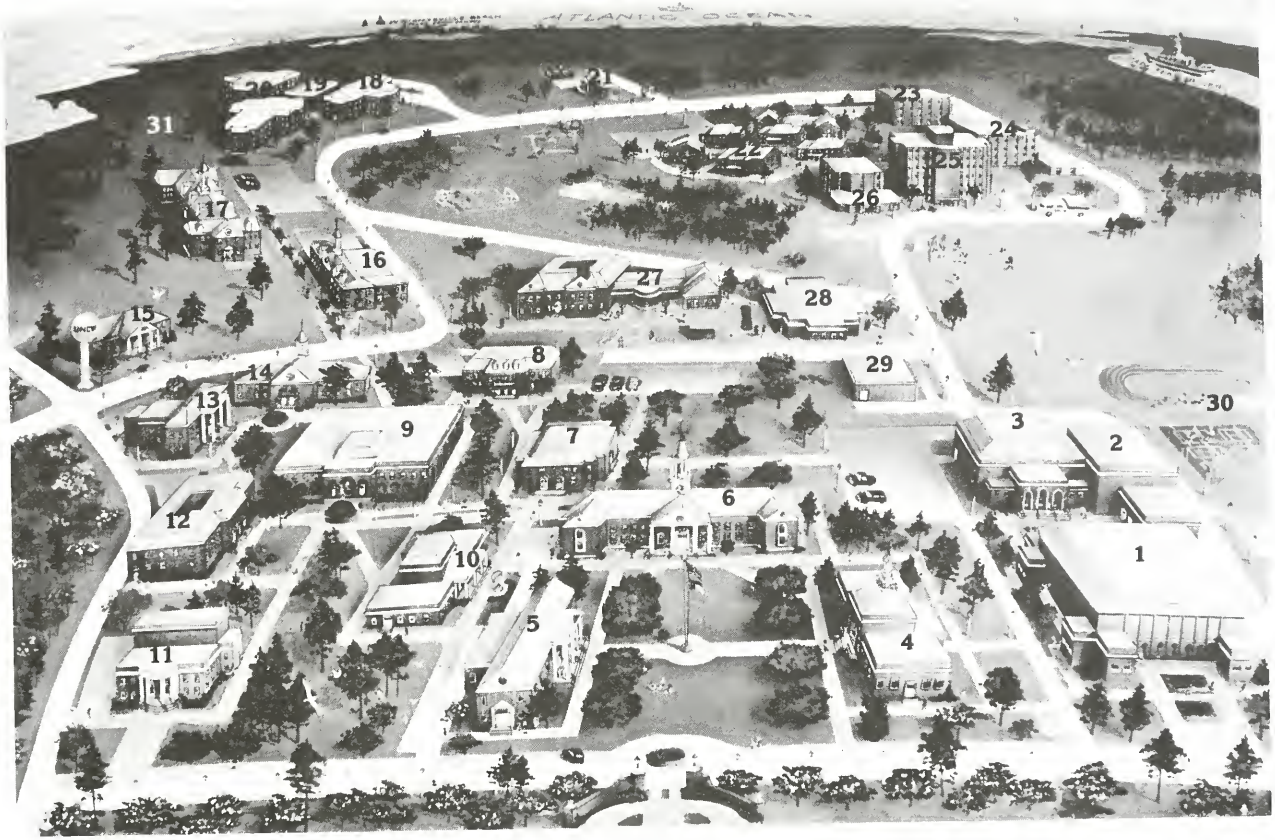
NOTES

Map/Key

1. Trask Coliseum
2. Natatorium
3. Hanover Hall Gym
4. James Hall
5. Alderman Hall
6. Hoggard Hall
7. University Cafeteria
8. King Hall
9. Randall Library
10. Kenan Hall
11. Kenan Auditorium
12. DeLoach Hall
13. Bear Hall
14. Morton Hall
15. Friday Hall
16. Social & Behavioral Sciences Building
17. Cameron Hall
18. Dorm '85
19. Residence Life Building
20. Proposed Student Housing
21. Campus Police
22. University Apartments
23. Hewlett Hall
24. Graham Hall
25. Galloway Hall
26. Belk Hall
27. University Union
28. Student Support Center
29. Warehouse/Copy Center
30. Harold Greene Track & Field Complex
31. East Cafeteria



THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

UNCW

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at Wilmington
Wilmington, N.C.
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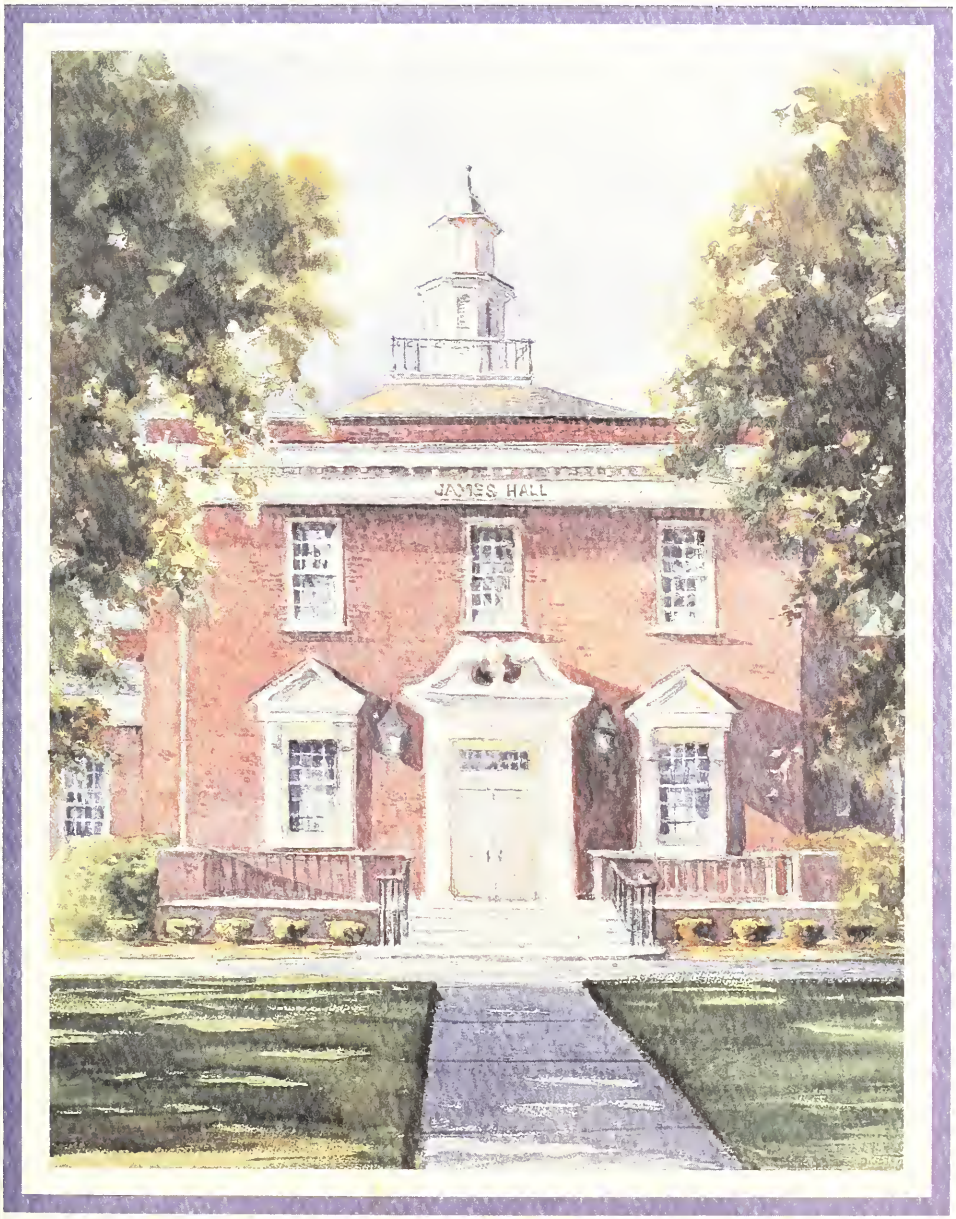
Fourth Class
Book Rate



The University of North Carolina at Wilmington

Undergraduate Catalogue

1991-1992

THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

UNDERGRADUATE CATALOGUE

1991-1992
Bulletin 43

The University of North Carolina at Wilmington is committed to equality of educational opportunity and does not discriminate against applicants, students, or employees based on race, color, national origin, religion, sex, age, or handicap. Moreover, the University of North Carolina at Wilmington is open to people of all races and actively seeks to promote racial integration by recruiting and enrolling a larger number of black students.

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A separate graduate catalogue is available in the Graduate School.

All provisions, regulations, degree programs, course listings, etc., in effect when this catalogue went to press are subject to revision by the appropriate governing bodies of The University of North Carolina at Wilmington.

12,000 copies of this public document were printed at a cost of $16,685.00 or $1.39 per copy (G.S. 143-170.1)

W. Albert Corbett
Chairman
Board of Trustees

It is my great pleasure, on behalf of the Board of Trustees, to welcome you to our beautiful and bustling campus. We are delighted that you have chosen The University of North Carolina at Wilmington as the place where you seek higher education.

The campus has much to offer. In addition to the marvels of its location, it is planned to offer the best setting for growing and learning. Every effort is made to provide opportunities for you to expand your horizons, both intellectually and socially.

It is our hope that both inside the classroom and outside, you will take every advantage of all the university and southeastern North Carolina have to offer you.

The faculty and staff stand ever-ready to help you. Meet them half way by doing your best in all you undertake here.

Sincerely,

W. Albert Corbett
Chairman of the Board of Trustees

Dr. James R. Leutze
Chancellor

As you begin your academic career at The University of North Carolina at Wilmington, you are entering a new phase of your life, one that will be devoted to rigorous pursuits of the mind and personal development. You have chosen an institution whose faculty care about students and whose students care about building a tradition of academic achievement. The environment of this lovely old port city will make living and studying a memorable experience.

I welcome you to this institution, and I challenge you to take full advantage of the opportunities for intellectual and emotional growth. Get to know your professors — debate with them, speak out in class, hear new and different ideas, learn the joy of discovery. Take advantage of cultural offerings. Become a campus leader. Get involved in politics. Enjoy an active social life. Study abroad to learn about another culture.

UNCW faculty and staff are vitally interested in your success, and we are here to help you. I keep regular office hours for students, and I want you to come see me if you think I can help you or if you just want to chat.

With all best wishes.

Dr. James R. Leutze
Chancellor

1991

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CALENDAR OF EVENTS
1991-1992

Fall Semester, 1991

August 12, Monday	Academic year begins
August 17, Saturday	On-campus housing opens for new students
August 18, Sunday	On-campus housing opens for returning students
August 18-19, Sunday-Monday	Orientation and advising (freshmen)
August 20, Tuesday	Orientation and advising (transfers)
August 21, Wednesday	Registration
August 22, Thursday	Classes begin
August 28, Wednesday	Last day to add a class or drop without a grade
September 2, Monday	Labor Day holiday
September 12, Thursday	Faculty meeting
October 2, Wednesday	Last day to withdraw with W - undergraduate students
October 9, Wednesday	Fall vacation begins 10:30 p.m.
October 14, Monday	Fall vacation ends 8:00 a.m.
October 24, Thursday	Graduation application deadline, Spring 1992
November 8, Friday	Last day to withdraw with WP - graduate students
November 26, Tuesday	Thanksgiving vacation begins 10:30 p.m./on-campus housing closes
December 1, Sunday	On-campus housing opens 3:00 p.m.
December 2, Monday	Thanksgiving vacation ends 8:00 a.m.
December 6, Friday	Last day of classes
December 7, Saturday	Reading day
December 9-14, Monday-Saturday	Final examinations
December 16-17, Monday-Tuesday	Final examinations
December 17, Tuesday	Fall semester ends/on-campus housing closes

Spring Semester, 1992

January 8, Wednesday	On-campus housing opens
January 9, Thursday	Orientation and testing; Spring semester begins
January 10, Friday	Advising and registration
January 13, Monday	Classes begin
January 17, Friday	Last day to add a class or drop without a grade
January 20, Monday	Martin Luther King holiday
February 21, Friday	Last day to withdraw with W - undergraduate students
February 28, Friday	Spring vacation begins at 10:30 p.m.
March 9, Monday	Spring vacation ends at 8:00 a.m.
March 13, Friday	Graduation application deadline, Summer 1992
March 31, Tuesday	Last day to withdraw with WP - graduate students
April 9, Thursday	Faculty meeting
April 16, Thursday	Easter vacation begins 10:30 p.m.
April 20, Monday	Easter vacation ends 8:00 a.m.
April 29, Wednesday	Last day of classes

April 30, Thursday	Reading day
May 1-2, Friday-Saturday	Final examinations
May 4-9, Monday-Saturday	Final examinations
May 9, Saturday	Spring semester ends/on-campus housing closes
May 16, Saturday	Commencement, academic year ends

Summer Session, 1st, 1992

May 21, Thursday	On-campus housing opens
May 22, Friday	Registration
May 25, Monday	Classes begin
May 26, Tuesday	Last day for registration
May 27, Wednesday	Last day to add a class or drop without a grade
June 3, Wednesday	Last day to withdraw with a W - undergraduate students
June 12, Friday	Last day to withdraw with a WP - graduate students
June 19, Friday	Graduation application deadline, Fall 1992
June 23, Tuesday	Last day of classes
June 24, Wednesday	Final examinations/term ends

Summer Session, 2nd, 1992

June 28, Sunday	On-campus housing opens
June 29, Monday	Registration
June 30, Tuesday	Classes begin
July 1, Wednesday	Last day for registration
July 2, Thursday	Last day to add a class or drop without a grade
July 3, Friday	Independence Day Holiday
July 10, Friday	Last day to withdraw with W - undergraduate students
July 21, Tuesday	Last day to withdraw with WP - graduate students
July 30, Thursday	Last day of classes
July 31, Friday	Final examinations/term ends/on-campus housing closes

CALENDAR OF EVENTS
1992-93

Fall Semester, 1992

August 10, Monday	Academic year begins
August 15, Saturday	On-campus housing opens for new students
August 16, Sunday	On-campus housing opens for returning students
August 16-17, Sunday-Monday	Orientation and advising (freshmen)
August 18, Tuesday	Orientation and advising (transfers)
August 19, Wednesday	Registration
August 20, Thursday	Classes begin
August 26, Wednesday	Last day to add a class or drop without a grade
September 7, Monday	Labor Day holiday
September 10, Thursday	Faculty meeting
September 30, Wednesday	Last day to withdraw with W - undergraduate students
October 7, Wednesday	Fall vacation begins 10:30 p.m.
October 12, Monday	Fall vacation ends 8:00 a.m.
October 22, Thursday	Graduation application deadline, Spring 1993
November 6, Friday	Last day to withdraw with WP - graduate students
November 24, Tuesday	Thanksgiving vacation begins 10:30 p.m.
November 30, Monday	Thanksgiving vacation ends 8:00 a.m.
December 4, Friday	Last day of classes
December 5, Saturday	Reading day
December 7-12, Monday-Saturday	Final examinations
December 14-15, Monday-Tuesday	Final examinations
December 15, Tuesday	Fall semester ends/on-campus housing closes

Spring Semester, 1993

January 6, Wednesday	On-campus housing opens for new students
January 7, Thursday	Orientation and testing; Spring semester begins
January 8, Friday	Advising and registration/on-campus housing opens for returning students
January 11, Monday	Classes begin
January 15, Friday	Last day to add a class or drop without a grade
January 18, Monday	Martin Luther King holiday
February 19, Friday	Last day to withdraw with W - undergraduate students
February 26, Friday	Spring vacation begins at 10:30 p.m.
March 8, Monday	Spring vacation ends at 8:00 a.m.
March 12, Friday	Graduation application deadline, Summer 1993
March 30, Tuesday	Last day to withdraw with WP - graduate students
April 8, Thursday	Easter vacation begins 10:30 p.m.
April 12, Monday	Easter vacation ends 8:00 a.m.
April 15, Thursday	Faculty meeting
April 28, Wednesday	Last day of classes
April 29, Thursday	Reading day

April 30-May 1, Friday-Saturday	Final examinations
May 3-8, Monday-Saturday	Final examinations
May 8, Saturday	Spring semester ends/on-campus housing closes
May 15, Saturday	Commencement, academic year ends

Summer Session, 1st, 1993

May 20, Thursday	On-campus housing opens
May 21, Friday	Registration
May 24, Monday	Classes begin
May 25, Tuesday	Last day for registration
May 26, Wednesday	Last day to add a class or drop without a grade
June 2, Wednesday	Last day to withdraw with a W - undergraduate students
June 11, Friday	Last day to withdraw with a WP - graduate students
June 18, Friday	Graduation application deadline, Fall 1993
June 22, Tuesday	Last day of classes
June 23, Wednesday	Final examinations/term ends

Summer Session, 2nd, 1993

June 27, Sunday	On-campus housing opens
June 28, Monday	Registration
June 29, Tuesday	Classes begin
June 30, Wednesday	Last day for registration
July 1, Thursday	Last day to add a class or drop without a grade
July 5, Monday	Independence Day holiday
July 9, Friday	Last day to withdraw with W - undergraduate students
July 20, Tuesday	Last day to withdraw with WP - graduate students
July 29, Thursday	Last day of classes
July 30, Friday	Final examinations/term ends

ADMINISTRATIVE OFFICERS OF THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

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Mark W. Lanier, M.A. ..... *Special Assistant to the Chancellor*
Paul B. Eaglin, J.D. ..... *Special Assistant for Legal Affairs*

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Norman R. Kaylor, Ph.D. ..... *Dean, Cameron School of Business Administration*
Roy E. Harkin, Ph.D. ..... *Dean, School of Education*
Marlene M. Rosenkoetter, Ph.D. ..... *Dean, School of Nursing*
Eric G. Bolen, Ph.D. ..... *Dean, Graduate School*
James F. Merritt, Ph.D. ..... *Director of Center for Marine Science Research*
George M. Quinn, Ed.M. ..... *Director of Computer and Information Systems*
Gary L. Faulkner, Ph.D. ..... *Director of International Programs*
Eugene W. Huguelet, M.L.S. ..... *Director of Library Services*
John J. Manock, Ph.D. ..... *Director of Research Administration*
James C. Edmundson, Ed.D. ..... *Director of Special Programs*
Dorothy P. Marshall, B.S. ..... *Registrar*
Diane M. Zeeman, M.A. ..... *Director of Undergraduate Admissions*

BUSINESS AFFAIRS

R. O. Walton, Jr., B.A. ..... *Vice Chancellor for Business Affairs*
J. Carl Dempsey, M.Ed. ..... *Associate Vice Chancellor for Business Affairs*
Charles W. King, M.A. ..... *Assistant Vice Chancellor for Business Affairs - Business*
Timothy A. Jordan, M.B.A. ..... *Assistant Vice Chancellor for Business Affairs - Finance*
Tammy E. Blizzard, B.S. ..... *Director of Accounting*
Margaret T. Robison, M.Ed. ..... *Director of Auxiliary Services*
Nikki S. Howard, B.S., C.P.A. ..... *Director of Internal Auditing*
William R. Calloway, M.P.A. ..... *Director of Human Resources*
Roger E. Fry, B.S.C.E., P.E. ..... *Director of Physical Plant Services*
Charles L. Sanders, III, C.P.M. ..... *Director of Purchasing Services*
LeRoy Oakley, III, B.S., C.P.A. ..... *Director of Systems and Budget*
Billy W. Dawson ..... *Director of Campus Police*
John M. Geddie ..... *Director of Safety*

Charles A. Maimone, M.A. ..... *Director of Housing and Food Service*
William E. Vereen ..... *Director of Telecommunications*
Joseph S. Hack ..... *Director Project Design and Management*

STUDENT AFFAIRS

William A. Bryan, Ed.D. ..... *Vice Chancellor for Student Affairs*
Richard H. Mullendore, Ph.D. ..... *Associate Vice Chancellor for Student Affairs*
Patricia Leonard, M.A. ..... *Dean of Students*
Li-Shing Wang, M.A. ..... *Director of Student Life Studies*
Joseph V. Capell, M.Div. ..... *Director of Financial Aid*
Paul Johnston, Ph.D. ..... *Director of Student Development Center*
Linda Moore, M.Ed. ..... *Director of University Union*
Kathleen Jewell, M.D. ..... *Director of Student Health and Wellness Center*
James C. Braye, M.S. ..... *Director of Career Planning and Placement*

UNIVERSITY ADVANCEMENT

M. Tyrone Rowell, M.A. ..... *Interim and Associate Vice Chancellor for University Advancement*
Mary W. Cunningham, M.A. ..... *Executive Director of University Relations*
Howard R. Lipman, B.S. ..... *Executive Director of Resources Development*
Renee R. Brantley, A.B.J. ..... *Director of Publications*
Carol E. King, B.S. ..... *Director of Alumni Relations*

SUPPORTING SERVICES

William J. Brooks, M.S. ..... *Director of Athletics*
Robert E. Fry, M.S.P.H. ..... *Director of Institutional Research*
Ralph H. Parker, M.Ed. ..... *Director of Minority Affairs*
Paul B. Eaglin, J.D. ..... *Compliance Officer*

THE UNIVERSITY OF NORTH CAROLINA
Sixteen Constituent Institutions

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Raymond H. Dawson, B.A., M.A., Ph.D., ... *Vice President - Academic Affairs*
Judith P. Pulley, B.A., Ph.D., ... *Interim Vice President - Planning*
Nathan F. Simms, Jr., B.S., M.S., Ph.D., ... *Vice President - Student Services and Special Programs*
L. Felix Joyner, A.B., ... *Vice President - Finance*
Jasper D. Memory, B.S., Ph.D., ... *Vice President - Research and Public Services*
Wyndham Robertson, A.B., ... *Vice President - Communications*
Jay M. Robinson, B.S., M.A., Ed.D., ... *Vice President - Public Affiars*
David G. Martin, B.A., LL.B., ... *Secretary of the University*
Richard H. Robinson, Jr., A.B., LL.B., ... *Assistant to the President*
John W. Dunlop, B.A., ... *Director, The University of North Carolina Center for Public Television*

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Asa T. Spaulding, Jr.
Harold H. Webb
Ruth Dial Woods

Member Emeritus

Philip G. Carson

THE UNIVERSITY

HISTORY OF THE UNIVERSITY SYSTEM

The University of North Carolina is comprised of all the public institutions of higher education in North Carolina that confer degrees at the baccalaureate level or higher. The university was authorized by the State Constitution in 1776, and it was chartered in 1789 by the General Assembly.

The University of North Carolina opened its doors to students at Chapel Hill in 1795. Thereafter, beginning in the latter part of the nineteenth century, the General Assembly of North Carolina has established and supported fifteen other public senior institutions in keeping with Article IX, Section 8, of the Constitution of North Carolina which provides that the "General Assembly shall maintain a public system of higher education, comprising the University of North Carolina and such other institutions of higher education as the General Assembly may deem wise."

By 1969, the University of North Carolina included six constituent institutions, governed by a single Board of Trustees. This multi-campus university had its beginnings in legislation enacted in 1931 that defined the University of North Carolina to include the University of North Carolina at Chapel Hill, North Carolina State University at Raleigh, and the University of North Carolina at Greensboro. In the 1960's three additional campuses were added: The University of North Carolina at Charlotte, the University of North Carolina at Asheville, and the University of North Carolina at Wilmington.

Beginning in 1877, the General Assembly of North Carolina established or acquired ten additional separately governed state-supported senior institutions of higher education. They are Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, North Carolina School of the Arts, Pembroke State University, Western Carolina University, and Winston-Salem State University. Then, in 1971, the General Assembly redefined the University of North Carolina, and under the terms of that legislation all sixteen public senior institutions became constituent institutions of the University of North Carolina.

The constitutionally authorized Board of Trustees of the six-campus University of North Carolina was designated by the Board of governors and this body is by law the University of North Carolina. The Board of Governors consists of thirty-two members elected by the General Assembly, and it is charged with "the general determination, control, supervision, management, and governance of all affairs of the constituent institutions." The chief executive officer of the university is the president. Each constituent institution of the university has its own faculty and student body. The chief administrative officer of each institution is the chancellor, and the chancellors are responsible to the president.

Each constituent institution also has a Board of Trustees composed of thirteen members: eight elected by the Board of Governors, four appointed by the governor, and the elected president of the study body ex officio. (The School of the Arts has two additional ex officio trustees.) The principal powers of these institutional board are exercised under a delegation of authority from the Board of Governors.

UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

Statement of Institutional Mission

The University of North Carolina at Wilmington is a community of scholars dedicated to excellence in teaching, research, artistic achievement, and service to local and global communities. It is an evolving comprehensive university of moderate size that values close relationships among students, faculty, and staff in a diverse, supportive, and challenging intellectual environment.

The University of North Carolina at Wilmington, founded as Wilmington College in 1947, owes much of its development and dynamic character to its heritage and location. The student-centered philosophy of the university comes in part from its origin as a community college with small classes and extensive interaction between students and faculty. With growth, the focus has expanded to include graduate students, bringing increased opportunities for scholarly activities.

As the only public university in southeastern North Carolina, this institution bears a special responsibility for education and service. The university is committed to providing lifelong learning opportunities, assisting with the improvement of public school education, and enhancing the personal, cultural, and economic health of the region. Located in a historic port city, the university provides related experiences in cultural, commercial, and archeological studies. The proximity of the Atlantic Ocean enables the university to be a leader in marine studies and provides an exceptional opportunity to teach and practice environmental awareness and responsibility. The university is dedicated to the preservation of conservation areas on campus that are representative of ecosystems in the region. The university seeks to stimulate in its students intellectual curiosity, imagination, rational thinking, thoughtful expression, and a love of learning. Knowledge of the humanities, social and natural sciences, and fine arts, along with effective communication and decision-making skills, are central to the curriculum. Students are encouraged to develop and understanding of their own and other cultures in order to appreciate the right variety of thought and lifestyles that form the world in which they live. The university offers programs to help students clarify values, develop physical well-being, work independently and interdependently, and participate in university governance. The university is committed to providing each student with opportunities, resources, and guidance to achieve personal, academic, and career goals.

Excellence in teaching and creative scholarly activity are fundamental for any university. The pursuit of knowledge and understanding complements effective teaching, sustains intellectual vitality, and is an important contribution to the larger community. Research and artistic endeavors are essential for faculty and students. The university encourages and supports scholarly work and seeks to attract energetic faculty with diverse interests and expertise.

The university provides a secure intellectual, social, and physical environment conducive to achieving its mission. Freedom of thought, expression, and association are fostered and protected. The continuing development of students, faculty, and staff, as well as the maintenance and development of academic and social programs of excellence, are ensured with funds from both public and private sources. Ongoing planning and assessment of services, programs, research, and instruction assure the productive use of resources and assets.

The university remains committed to planned growth, quality programs, and a strong sense of community. The evolution of the university will involve strengthening and expanding

- undergraduate education,
- marine science and marine-related activities,
- research, graduate, and professional programs,
- interdisciplinary programs,
- public service,
- international exchange programs for students and faculty,
- involvement in multicultural, social, environmental, and global issues of current and emerging importance,
- instructional and research resources, and
- campus facilities to meet educational, social, and recreational needs.

Through the activities of its students, faculty, and staff, the University of North Carolina at Wilmington seeks to educate and interact with the diverse community it reflects and serves. Fulfilling its mission strengthens the position of the university within the world academic community.

THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

BOARD OF TRUSTEES

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THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

HISTORY AND BACKGROUND

Education on the college level first came to Wilmington in 1946 when a college center was established under the direction of the North Carolina College Conference and under the administration of the Directorate of Extension of the University of North Carolina at Chapel Hill. The center offered courses on the freshman level to some 250 students during the academic year 1946-47. In 1947, a tax levy was approved by the citizens of New Hanover County, and Wilmington College was brought into existence as a county institution under the control of the New Hanover County Board of Education. In 1948, Wilmington College was officially accredited by the North Carolina College Conference and became a member of the American Association of Junior Colleges. In 1952, the institution was accredited as a junior college by the Southern Association of Colleges and Schools.

In 1958, New Hanover County voted to place the college under the Community College Act of the State of North Carolina. By virtue of this vote, the college became a part of the state system of higher education, and control passed from the New Hanover County Board of Education to a board of twelve trustees, eight of whom were appointed locally and four of whom were appointed by the governor of the state. At the same time, the requirements for admission and graduation and the general academic standards of the college came under the supervision of the North Carolina Board of Higher Education, and the college began to receive an appropriation from the state for operating expenses in addition to the local tax.

On July 1, 1963, by an act of the General Assembly of North Carolina, Wilmington College became a senior college with a four-year curriculum, authorized to offer the bachelor's degree. By vote of the Board of Trustees of the University of North Carolina in late 1968, with subsequent approval by the North Carolina Board of Higher Education, and by an act of the General Assembly of North Carolina in 1969, Wilmington College became, on July 1, 1969, the University of North Carolina at Wilmington. It, and the institution in Asheville previously designated as Asheville-Biltmore College, became the fifth and sixth campuses of the University of North Carolina.

On October 30, 1971, the General Assembly in special session merged, without changing their names, the remaining ten state-supported senior institutions into the university. Thus the University of North Carolina now comprises 16 institutions. On August 22, 1977, the

Board of Governors of the University of North Carolina authorized the University of North Carolina at Wilmington to offer its first graduate programs at the master's level.

In the spring of 1985, the Board of Governors of the University of North Carolina elevated the University of North Carolina at Wilmington to a Comprehensive Level I University.

The programs offered by the university include four-year programs leading to the Bachelor of Arts and Bachelor of Science degrees within the College of Arts and Sciences, the Cameron School of Business Administration, the School of Education, and the School of Nursing; graduate programs leading to the Master of Education, the Master of Science, the Master of Arts, the Master of Arts in Teaching, and the Master of Business Administration degrees; a variety of pre-professional programs; and special programs in a variety of areas, including marine science research, and continuing education.

ACADEMIC STANDING

The University of North Carolina at Wilmington is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award degrees at the bachelor's and master's level; and the North Carolina Association of Colleges and Universities. The School of Education is accredited by the National Council for Accreditation of Teacher Education. The university also holds membership in the American Assembly of Collegiate Schools of Business, the American Council on Education, the American Placement Council and the Council for Advancement and Support of Education, and is on the list of schools approved by the American Chemical Society.

THE FACULTY

The university seeks to attract and maintain a faculty of outstanding individuals who are capable of contributing to the enrichment of its diverse and comprehensive instructional and research programs. Its faculty members come from all geographic sections of the United States and several foreign countries, bringing to this campus a rich variety of educational experiences, training and scholarship. Of the more than 412 instructional and research faculty, more than 67 percent hold doctoral degrees.

NOTE: For faculty directory see page 260.

STATEMENT ON DIVERSITY IN THE UNIVERSITY COMMUNITY

In an effort to address the needs of the total university community, the chancellor has endorsed the following statement of principle proposed by the Human Relations Advisory Committee. As an institution of higher learning, the University of North Carolina at Wilmington represents a rich diversity of human beings among its faculty, staff, and students and is committed to maintaining a campus environment that values that diversity. Accordingly, the university supports policies, curricula and co-curricula activities that encourage understanding of an appreciation for all members of its community and will not tolerate any harassment of or disrespect for persons because of age, sex, color, race, religion, creed, national origin, sexual preferences, political belief or affiliation, handicap, veteran status, marital status, or membership in any organization. For more information concerning the ways that our multicultural learning community may be nurtured and protected, contact the Human Relations committee through the offices of the Chancellor or the Dean of Students.

BOARD OF TRUSTEES' TEACHING EXCELLENCE AWARD

The Board of Trustees of the University of North Carolina at Wilmington, in recognition of this institution's commitment to teaching excellence, has established the Board of Trustees' Teaching Excellence Award. Recipients of the award manifest excellence as a way of life and stand out among the faculty as persons who have made and continue to make a significant contribution to higher education through their dedication and service to students. The award carries with it both an honor and a responsibility: it specifies a member of the faculty as a person of excellence and it calls upon the person so honored to share that excellence with colleagues and students.

Recipients

1978 B. Frank Hall
1979 Frank Allen
1980 Steve Harper
1981 Gerald Shinn
1982 William F. Adcock (posthumously)
1983 Betty Jo Welch
1984 Anne B. McCrary
1985 Charles Richard Ward
1986 John H. Haley
1987 Saul Bachner
1988 C. Sue Lamb
1989 W. Lee Johnston
1990 C. Sue Combs

THE UNCW AWARD FOR FACULTY SCHOLARSHIP

The UNCW Award for Faculty Scholarship is designed to underscore this institution's continuing commitment to scholarship and creative work. Recipients of the award shall stand out among the faculty as persons who have made, and continue to make, a significant contribution to the university and the academic community through their commitment to scholarship, research, and creativity.

Recipient

1990 Donald F. Kapraun

THE FOUNDATION CHAIR

The Foundation of the University of North Carolina at Wilmington is a charitable, nonprofit corporation established for the sole purpose of supporting the university. Through private donations it supports a faculty chair, designated to assist the university in its long-range efforts concerning faculty development and recruitment. The Foundation Chair, which is currently allocated to the various academic disciplines on a rotating basis, enables the university to bring to this campus renowned scholars and performing artists. In filling the chair a special effort is made to select individuals whose contributions will benefit not only the university, but also the community at large.

THE CAMPUS

The University of North Carolina at Wilmington is located in the southeastern part of the state on a 661-acre tract on State Highway 132 (College Road) midway between the Cape Fear River and the Atlantic Ocean. The city of Wilmington is situated on the east bank of the Cape Fear River about 15 miles from Carolina Beach and 10 miles from Wrightsville Beach. The standard metropolitan area, of which Wilmington is a part, now has a population in excess of 118,000. Several main highways lead into the city, and commercial air service provides easy access to other metropolitan areas north, south, and west.

Ocean breezes and the nearness of the Gulf Stream give Wilmington a delightful year round climate, and the area's proximity to the ocean provides unlimited recreational opportunities.

The spacious well-landscaped campus was first occupied by the university in 1961. The number of buildings has increased from three in 1961 to 70 today. There are several athletic fields and ample space for parking.

BUILDINGS

The buildings on the campus are of modified Georgian architecture. All academic buildings as well as the cafeterias and residence halls, are completely air-conditioned.

Edwin A. Alderman Hall, which houses administrative offices, is named in honor of a native Wilmingtonian who served as president of The University of North Carolina, The University of Virginia and Tulane University.

Hoggard Hall, an academic building named in honor of Dr. John T. Hoggard, second president of Wilmington College, contains classrooms, the School of Nursing, laboratories, the Computing Center, Office of Special Programs, Office of Institutional Research, Office of Research Administration, and faculty and staff offices.

Kenan Hall, named in honor of the late Mrs. Sarah Graham Kenan of Wilmington, is occupied by the Fine Arts Department. It contains classrooms, faculty offices, art and music studios, the music library, and electronic music studio, dramatic workshops and the S.R.O. Theatre. It also contains an auditorium with seating capacity of approximately 100.

Will S. DeLoach Hall houses the departments of chemistry and physics. It is equipped with classrooms, faculty and staff offices, teaching auditoriums, and modern, well-equipped laboratories for the physical sciences.

Friday Hall, named in honor of UNC President Emeritus William C. Friday and his wife Ida, was completed in 1974. It houses the departments of Biological Sciences and Earth Sciences and contains classrooms and laboratories.

Arnold Kimsey King Hall houses the School of Education and contains an auditorium with a seating capacity of 191, classrooms, faculty offices, and a curriculum laboratory.

Isaac Bear Hall, completed in 1972, contains classrooms, the Department of Mathematical Sciences, and the Graduate School.

Morton Hall, named for Margaret Shannon Morton, was completed in October 1978 and houses the departments of English, History, and Foreign Languages. The building contains classrooms, seminar rooms, and the Bryan Auditorium which seats 200.

The Social and Behavioral Sciences Building was completed in 1980. It houses the departments of Psychology, Philosophy and Religion, Political Science, and Sociology/Anthropology, as well as some offices of the campus computing center.

Cameron Hall, occupied in 1988, houses the Cameron School of Business Administration

The Sarah Graham Kenan Auditorium, a gift from the Sarah Graham Kenan Foundation, has a seating capacity of 1,000 persons. The auditorium is also equipped for use as a theatre and contains seminar rooms for the Department of Fine Arts.

Hanover Hall and Trask Coliseum, the physical education complex, provide modern facilities for the athletic activities of all students, including a large playing floor with rollaway bleachers, a second athletic activity floor, offices, locker rooms and showers, and special gymnastic equipment.

The Raiford G. Trask Health and Physical Education Building provides the campus with a 6,000-seat coliseum as well as an olympic size swimming pool and a separate diving tank. Construction was completed in the fall of 1977.

The University Union is the "living room" of the university community. It houses a wide variety of services, student and administrative offices, while providing space for campus activities and meetings. The University Center, opened in 1991, provides supplementary space to the University Union operation. In the building are housed the post office, the game room, a food facility and coffee house, the Office of Human Resources, and a large multi-purpose room which can be divided into as many as three smaller spaces. Areas of the multi-purpose room will be available to the university community and the community at large for meetings and conference proceedings.

Hinton James Hall, named for a New Hanover County resident who was the first student to enroll at The University of North Carolina, houses the Financial Aid Office, Registrar Services, Undergraduate Admissions, Cashier, and the office of the Dean of the College of Arts and Sciences.

The Burney Student Support Center opened in 1985. Centrally located adjacent to the University Union, it houses the University Bookstore, Student Health Services, Student Development Center, and the Parking Office.

Wagoner Dining Hall opened in 1989, providing space for food service for students and faculty. This facility along with two other food service facilities contains modern food service equipment which allows for many different food and catering services.

The Edmond R. Galloway Residence Hall, opened in 1971, provides housing for 400 students. The Belk Residence Hall, opened in June 1976, accommodates 200 students. The 400-student residence hall, Addison Hewlett, Jr., opened in 1978. Another residence hall for 420 students, Frederick B. Graham Hall, was occupied in the fall of 1979. In 1981, the 400-student apartment complex was completed and occupied. Schwartz Hall opened in the fall of 1985 for an additional 160 students. Suite housing for 400 students opened in the fall of 1989.

WILLIAM MADISON RANDALL LIBRARY

The William Madison Randall Library constitutes a vital instructional and research resource of The University of North Carolina at Wilmington. Named for the President Emeritus of Wilmington College, the library, recently enlarged and completely renovated, provides seating for over 950 users and will accommodate a collection of 475,000 hardbound volumes in addition to various other collections.

The library now contains over 340,000 hardbound volumes and subscribes to some 4,950 serial titles. Extensive journal backfiles are maintained in bound volumes and in microformat. A large audiovisuals collection containing resources in several formats is conveniently located on the first floor, and a 73-seat auditorium is equipped for various types of audiovisual use. Rare and unique items are housed in the Helen Hagan Rare Book Room. An online catalogue and circulation system provides easy, efficient access to most of the library's collections.

The library is a partial depository for United States government publications, and the collection now consists of over 400,000 items in hardcopy and microtext. The library is a ful depository for North Carolina documents. These materials are readily available to all of the library's users. The library also houses the Curriculum Materials Center, a specialized facility designed to support the teacher education program of the School of Education.

Maintaining a schedule of over 98 hours per week during the regular academic sessions the library has established as its major goal the provision of an excellent program of services designed to facilitate and encourage maximum use of informational resources.

COMPUTING SERVICES

General academic computing support for student course-related instruction and research is provided through both terminal access to the central facility Digital Equipment VAXcluste computer systems and numerous microcomputers located throughout the campus. The central computer facility is supplemented by several supermicrocomputers and a SEQUENT Balance B8 parallel-processor system running the UNIX operating system in the Departmen of Mathematical Sciences; a complex of microcomputers in the Cameron School of Business Administration; and specialized use microcomputers and workstations in the areas of English social sciences, biology, nursing, physics and earth sciences.

The central VAXcluster operates under the VAX/VMS operating system and supports such general use compilers and processors as COBOL, BASIC, PASCAL, PL/1, ADA, C, LISP FORTRAN, a spreadsheet, wordprocessor, and statistical analysis and graphics packages including SAS and SPSS-X. Terminal emulation software is available for microcomputer interface to the VAXcluster.

A campus-wide network provides access to the on-campus systems, as appropriate, and the Randall Library on-line public access catalog system. A variety of special equipment such as laser printers and plotters are available for general use.

The university is connected to BITNET, a communications network of over 2,000 institutional and departmental computers at 375 institutions of higher education and research centers in the U.S.A., Canada, Europe and Asia; and Internet, a network of networks including NSFnet Access to BITNET and Internet is restricted and to be used only for authorized university related activities.

The CRAY Y-MP supercomputer located at the North Carolina Supercomputer Center Research Triangle Park, NC, is available to faculty and graduate students with appropriate and approved projects. Access to the supercomputer is through the UNCW data network.

The intent is to provide all students maximum access to state-of-the-art computing. Students must establish a user account to utilize the central VAXcluster and must abide by the rules and policies for use of the facilities including microcomputers. User guides for UNCW' computing facilities are available in the campus bookstore. Contact Academic Computing Services for information on academic computing facilities and services.

OFFICE OF SPECIAL PROGRAMS

The Office of Special Programs plays a major role in fulfilling the university's goals to make s resources and expertise available to the public through community services, consulting nd technical assistance. Its mission centers on a "service" concept and programs are esigned to cater to the needs of the community and state. These vary and are outlined elow.

GENERAL PUBLIC, YOUTH, PROFESSIONAL DEVELOPMENT AND PUBLIC SERVICE PROGRAMS

Public service programs are presented to raise awareness of events that affect daily life r contribute to personal enrichment. These non-academic activities include guest speakers, iscussion groups, short courses, workshops and conferences covering topics ranging from ocal problems to international affairs.

A variety of short courses, conferences, and workshops are also specifically designed for usinesses, industries and professionals. University faculty and other qualified individuals onduct programs in communications, management, planning, supervision, small business dministration or other similar topics. Faculty from the Cameron School of Business Admin-tration and external professionals conduct courses in business as well as a comprehensive eries designed specifically for certified public accountants. On-site training seminars are lso offered.

Special Programs also assists school systems with programs and courses for professional nprovement of teachers. Courses are designed to meet certification and renewal require-nents and/or provide general training for teachers and administrators.

As another dimension of public service, the Office of Special Programs also assists com-nunity groups with scheduling university facilities for meetings, seminars and other programs.

CONFERENCE HOSTING COORDINATION

Because the university is vitally interested in assisting both the general public and organ-ations, the Office of Special Programs provides conference hosting coordination and serv-es for groups whose mission coincides with the UNC system.

Comprehensive services are "tailor-made" according to the needs of each group and can ncompass meeting space, housing accommodations, food services, registration of partic-ants or marketing. These conferences, for groups ranging from 20 to 800 persons, can be r credit or non-credit, meeting for one day or many weeks. Special emphasis is given to ecruiting non-profit groups with training/education purposes.

ERBERT BLUETHENTHAL MEMORIAL WILDFLOWER PRESERVE

The Herbert Bluethenthal Memorial Wildflower Preserve is a tract of approximately 10 acres et aside on the campus by the university's Board of Trustees in response to a donation by rs. Herbert Bluethenthal of Wilmington. The preserve includes a wide variety of plant com-nunities, marked trails to follow, and labeled plants to observe. It is dedicated to the pres-rvation of the rich and varied flora of southeastern North Carolina and has been designed provide a place of contentment and pleasure for those who enjoy and appreciate our ative plants.

Student Affairs

STUDENT AFFAIRS

The basic mission of the Division of Student Affairs is to encourage student use of personal institutional, community, and other resources toward the goals of individual development self-fulfillment, and a responsible citizenship. Its programs and services are directed toward assisting students in their educational and personal development.

OFFICE OF THE DEAN OF STUDENTS

The Office of the Dean of Students serves as the primary focal point for addressing studen needs, issues and concerns, and serves as a resource and referral office for all faculty, stat and students. Acting in an advocacy role, the dean and assistant dean of students represen the student perspective to the university community. This office works with all segments o the university to help students develop through opportunities, advice and assistance. Withir the Student Affairs Division, the Office of the Dean of Students provides consultation, nev program development and assistance to the vice chancellor with special projects. Specifi cally, the office assists in the coordination of orientation for freshmen and transfer students advises international, non-traditional students and commuter students, publishes the *Studen Handbook and Code of Student Life,* administers the student judicial system, including vio lations of the Academic Honor Code; coordinates the official withdrawal process from the university for undergraduate students; and assists the Office of Federal Compliance in proc essing cases of discriminatory personal conduct, including sexual harassment. Additionally the Office of the Dean of Students coordinates programs and policy on rape prevention an assistance, substance abuse education and prevention, and implements developmental pro grams to meet assessed and perceived student needs. The office of the Dean of Student also provides supervision for the Residence Life Program and ALTERNATIVES! the Substanc Abuse Education and Prevention Program.

SERVICES FOR INTERNATIONAL STUDENTS

The Office of the Dean of Students works with all international students in all matter relating to their stay at the university. The assistant dean serves as the international studer advisor and is available to assist international students on immigration, personal concerns or academic matters. This office cooperates closely with other university staff and faculti members in answering questions or concerns raised by international students. Each nev international student is required to report as soon as possible after his/her arrival to the Offic of the Dean of Students, room 209, University Union, telephone (919) 395-3119.

ALTERNATIVES!

The Alternatives! program is responsible for providing a systematic and comprehensiv set of services for substance abuse education and prevention to all segments of the universit community. The center serves as a highly visible and accessible multi-media resource are containing drug education materials, as well as information on alternatives to drug us Personal growth and self-concept enriching experiences are provided through alternativ learning opportunities. The center serves as a clearinghouse for other campus and com munity resources and provides consultation, information, or referral as appropriate. Addition educational opportunities for the entire campus are offered as needed.

The terms "substance" and "drug" are intended to include all psychoactive chemica including alcohol, stimulants, depressants, opiates, and hallucinogens.

)FFICE OF HEALTH PROMOTION

The Office of Health Promotion is responsible for implementating a wellness model for the niversity community. This model encourages and supports positive lifestyle choices and ehaviors. The office sponsors the LivWell program designed to provide wellness opportun-ies that include seminars, lifestyle and nutritional assessments, resource materials, and ther health related information.

NIVERSITY UNION

The University Union exists to provide support and give direction to out-of-classroom arning. Based on the philosophy that the process of learning is not confined to the class-oom, but instead is a constant and ongoing process, the mission of this department is to cilitate the educational process by providing a laboratory experience for student growth, nd an arena for the development of cultural, social, and recreational awareness. This is ccomplished through the administration of the university union and university center facilities, rograms and services, by providing resources to student organizations, and serving as the ampus's central point of reference in regard to student activities and organizations.

TUDENT DEVELOPMENT CENTER

The Student Development Center provides confidential individual and group counseling r personal, social, career or educational concerns. Decision-making resources for careers nd college majors include a computer guidance system, interest testing, and an information rary. Special assistance is offered with learning strategies, study, reading and exam-taking kills. Workshops are regularly scheduled on these topics as well as on personal growth, mmunication skills and stress management. As part of the university substance abuse ducation and prevention program, the center also provides substance abuse assessment, ferral and treatment for students. The center acts as a clearinghouse for disabled students' oncerns and assists with tutoring, equipment and advocacy needs. The office also admin-ters national testing programs such as the GRE, GMAT, NTE, MAT, and LSAT.

Consulting and referral services are provided by the center's staff for university faculty, aff and student groups.

AREER PLANNING AND PLACEMENT CENTER.

The Career Planning and Placement Center provides career planning and placement serv-es to students and alumni of UNCW. Assistance in developing career plans is available rough individual advising, workshops and seminars. The office also provides information nd counseling on careers, specific job requirements, employers, and graduate school pro-ams. Students are encouraged to use these services early in their college career.

The office publicizes specific job openings (part-time, summer and full-time, and state and deral government); makes individual referrals; schedules recruiting visits; maintains com-any recruiting literature; and provides information about public and private schools, and ate and federal government opportunities.

Seniors should register with the Career Planning and Placement Center in their junior or rly in their final year to establish a credentials file and to avail themselves of all placement rvices including resume writing, interviewing skills and job search training.

ESIDENCE LIFE PROGRAM

The Office of Residence Life, located in Residence Life Activity Center, is responsible for e development of educational, cultural and social programs to enhance student life on mpus. The goal of the Residence Life program is to create an environment conducive to

academic pursuits and personal growth of resident students. Over 45 Residence Life Staf are responsible for the supervision of resident students in the residence halls, on-campus apartments, and suite-style buildings.

The university has residence hall facilities for approximately 2,000 students in five modern conveniently located residence halls, 13 apartment buildings, and seven suite-style buildings All rooms are air-conditioned and furnished, and laundry facilities are available. The Resi dence Life program offers opportunities for student employment, leadership positions throug hall governance, and services of an eleven acre recreation field. Students living on campus are required to participate in the university dining hall program.

FOOD SERVICE

The UNCW Food Service operation is committed to providing quality food products serve in clean and comfortable facilities. The program is available to all students, faculty, and sta seven days a week when classes are in session. Wagoner Dining Hall, built in 1989, is modern 600-seat facility that serves unlimited seconds on every meal. Cash operation include: The Hawk's Nest, located in the University Union; Center Stage Cafe, located in th University Center; a pizza delivery program, and a convenience store located in Apartmen Building M.

Information about commuter student meal plans is available at the Housing and Foo Service Office in Wagoner Hall. Telephone 395-3178.

STUDENT HEALTH AND WELLNESS CENTER

The Student Health and Wellness Center (SHWC) located in the Burney Student Suppo Building is open 8:30 a.m. to 5:00 p.m., Monday through Friday for urgent care. After 5:0 p.m. during the week and all weekend, a practitioner is on call to provide information and/o referral.

The Student Health and Wellness Center (SHWC) provides diagnosis and treatment o general and acute medical problems. The health fee is part of the student fee and entitle students taking 6 or more credit hours* (living on or off campus) to health care services.

In addition to the treatment of general medical problems, the scope of services include laboratory testing to diagnose a variety of medical problems, allergy injections, gynecologi examinations and counseling, weight control and nutrition counseling, smoking cessatio crisis intervention, and referral as indicated. The Office of Health Promotion/LivWell provide the wellness resource center (films, books, and pamphlets) as well as opportunities for se care, and programming in wellness.

Each newly admitted UNCW student is required to have the following forms on fi in the SHWC prior to enrollment: 1.) a completed and up to date Report of Medic History and Physical Examination and 2.) a completed and up to date Immunizatio Record required by the N.C. Immunization Law (General Statues 130A-152).

*Students taking less than six hours will be entitled to health care services upon payme of the health fee and will be required to have the above forms on record.

STUDENT HEALTH INSURANCE

The Student Health Fee covers most medical care given at the Student Health and We ness Center on a prepaid basis. The health fee will not cover the costs of a student w requires hospitalization or specialty care. It is strongly recommended that students who a not covered for major medical expenses (serious injuries due to accidents or hospitalizatio

nder their family health insurance contact the SHWC or the Office of the Dean of Students r information and forms regarding the Student Group Health Insurance Plan available at a ominal cost through the university.

ELEASE OF "DIRECTORY INFORMATION"

The University of North Carolina at Wilmington has routinely made public certain information bout its students. Typically, UNCW releases the names of student who are selected by the arious honorary societies, receive scholarships, make the Dean's List, hold offices, or are embers of athletic teams. The annual commencement program publishes the names of ersons who have received degrees from UNCW during the year.

The Family Educational Rights and Privacy Act defines the term "directory information" to clude the following information: the students name, address, telephone listing, date and ace of birth, major field of study, participation in officially recognized activities and sports, eight and height of members of athletic teams, dates of attendance, degrees and awards ceived, and the most recent previous educational agency or institution attended by the udent. The university will make public information about each student limited to these ategories in ways such as those described above. Of course, information from all these ategories is not made public in every listing.

Students who do not wish to have any or all of such "directory information" made public ithout their prior consent must notify the Office of the Registrar of this fact in a signed and ated statement specifying items not to be published. This notice must be received by the ffice of the Registrar by the end of the registration period for the semester or session of st enrollment or, after an absence, of re-enrollment and by the end of each fall registration ereafter.

TUDENT CONDUCT

The filing of an application of admission shall be construed as both an evidence and edge that the applicant accepts the standards and regulations of The University of North arolina at Wilmington and agrees to abide by them. Each student, by the act of registering, obligated to obey all rules and regulation of the university catalogue and other university blications. The university reserves the right to ask for the withdrawal of any student who fuses to adhere to the standards of the institution.

TATEMENT OF UNIVERSITY POLICIES, PROCEDURES AND ISCIPLINARY ACTIONS IN CASES OF DISRUPTION OF EDUCATIONAL ROCESS

A policy statement was adopted by the Board of Trustees of the former consolidated iversity of North Carolina on October 26, 1970. It is set forth in Chapter V of the Code ovisions Governing the University of North Carolina, and is set forth in full in the *Student andbook and Code of Student Life.*

OLICY STATEMENT ON ILLEGAL DRUGS

Students, faculty members, administrators, and other employees of The University of North arolina at Wilmington are responsible, as citizens, for knowing about and complying with e provisions of North Carolina law that make it a crime to possess, sell, deliver, or manucture those drugs designated collectively as "controlled substances" in Article 5 of Chapter of the North Carolina General Statutes. A copy of this law is available in the following fices: Human Resources, Dean of Students, and Academic Affairs. Any member of the

university community who violates that law is subject both to prosecution and punishmen by the civil authorities and to disciplinary proceedings against a student, faculty member administrator, or other employee will be initiated when the alleged conduct is deemed t affect the interest of UNCW.

Penalties will be imposed for violation of the policies of UNCW only in accordance wit procedural safeguards applicable to disciplinary actions against students, faculty members administrators, and other employees. The penalties that may be imposed range from writte warnings with probationary status to expulsions from enrollment and discharges from em ployment. For more information, please refer to the *Code of Student Life*, *The Code of th University of North Carolina* (Section 603) and personnel procedure No. 610.

Every student, faculty member, administrator, and other employee of UNCW is responsibl for being familiar with and complying with the terms of the policy on illegal drugs adopte by the Board of Govenors of the University of North Carolina and the Board of Trustees c UNCW. Copies of the full text of that policy appear below as well as in the *Code of Studen Life, Faculty Handbook*, and it is available in Office of Human Resources.

POLICY ON ILLEGAL DRUGS

1 Introduction

The fundamental purpose of the University of North Carolina at Wilmington (UNCW) is t maintain an environment that supports and encourages the pursuit and dissemination c knowledge. That environment is damaged by illegal drug use. Therefore, all members of th academic community, students, faculty members, administrators, and other university em ployees, share the responsibility for protecting the environment by exemplifying high star dards of professional and personal conduct.

2 Policy and Program

A. The illegal use, possession, sale, delivery and/or manufacture of drugs will not b tolerated and may be grounds for immediate suspension or dismissal of student faculty members, administrators and other university employees.

B. UNCW policies and programs are intended to emphasize
   1. The incompatibility of the use or sale of illegal drugs with the goals of the un versity.
   2. The legal consequences of involvement with illegal drugs.
   3. The medical implications of the use of illegal drugs.
   4. The ways in which illegal drugs jeopardize an individual's present accomplish ments and future opportunities.

C. UNCW provides a systematic substance abuse education and prevention progra designed to reach all segments of the campus community. To assist in accomplish ing this mission, the Center for Substance Abuse Education and Prevention ha developed a well-integrated centralized program that is a focal point for campu substance abuse education, training, and prevention which monitors the effectiv ness of programs for constituencies served. This center provides substances abus counseling and referral services on campus and in the external community. It als provides consultative services to offices and agencies in the university environme and collaborates with the employee assistance coordinator in the Office of Huma Resources to develop counseling and referral services for faculty and staff desiro

of seeking assistance off-campus. This Policy on Illegal Drugs is presented within the four areas of education, counseling and rehabilitation, enforcement and penalties, and assessment.

Education

A. Provide a system of accurate, current information exchange on the health risks and symptoms of drug use for students, faculty and staff.

B. Promote and support institutional activity programming that discourages substance abuse.

C. Establish collaborative relationships between community groups and agencies and the institution for education, treatment and referral.

D. Provide training programs for students, faculty, and staff to enable them to detect problems related to drug use, and to refer persons with these problems to appropriate assistance.

E. Include information about drugs for students and family members in the student orientation programs. The use of prescription and over-the-counter drugs will be addressed.

F. Support and encourage faculty in incorporating education about drugs into the curriculum where appropriate.

G. Develop a coordinated effort across campus for drug related education, treatment and referral.

Counseling and Rehabilitation

A. UNCW provides information about drug counseling and rehabilitation services to members of the university community. Persons who voluntarily avail themselves of university services can be assured that applicable professional standards of confidentiality will be observed. Counseling and rehabilitation services include:

1. Provision of training for professional staff and student staff on drug abuse information, intervention and referral.
2. Conducting education programs for students who have demonstrated abusive behavior with drug problems.
3. Conducting individual and group counseling for members of the university community with drug problems.
4. Conducing drug abuse assessments.
5. Coordinating referral and follow up of campus individuals and developing a referral and follow up mechanism in collaboration with the employee assistance coordinator in the Office of Human Resources.
6. Organizing campus self-help groups.
7. Providing consultation, information and referral for students, staff and faculty with drug problems.
8. Designing and developing referral opportunities for members of the university community who desire to seek professional assistance beyond the campus. This will be done in cooperation with the employee assistance coordinator in the Office of Human Resources.

9. Providing with peer involvement a system of intervention and referral services for students, faculty and staff.

B. In providing the above prevention strategies, it is recognized that some campus constituents may prefer professional assistance external to the campus. Therefore, the campus community substance abuse education and prevention program coordinator will collaborate with the employee assistance coordinator in the development of appropriate referral mechanisms for these individuals. A listing of off campus resources for assistance and referral is available for those who choose that option. In the development of this program, it is desired that faculty, students, administrators and other employees be comfortable in the manner in which they are served and have a choice in the selection of appropriate assistance. Individuals served in the counseling program on campus can be assured that confidentiality will be maintained and that they will served by professionals.

5 Enforcement and Penalties

A. Enforcement:
In seeking to enforce established university policy, the University of North Carolina at Wilmington will:
1. Publicize all drug policies.
2. Consistently enforce drug policies.
3. Exercise appropriate disciplinary action for drug policy violations.

B. Penalties:
UNCW shall take actions necessary, consistent with state and federal law and applicable university policy, to eliminate illegal drugs from the university community. University policy on illegal drugs is publicized in the university catalogue, student and faculty handbooks, student orientation materials, letters to students and parents, residence hall meetings, and faculty and employee meetings.

Students and faculty members, administrators, and other employees are responsible as citizens for knowing about and complying with the provisions of the North Carolina law that makes it a crime to possess, sell, deliver, or manufacture drugs designated collectively as "controlled substances" in Article V, Chapter 90 of the North Carolina General Statutes (see Appendix H). Any member of the university community who violates that law is subject to both prosecution and punishment by the civil authorities and disciplinary proceedings by UNCW. It is not "double jeopardy" for both civil authorities and the university to proceed against and punish a person for the same specified conduct. The university will initiate its own disciplinary proceedings against the student, faculty member, administrator, or other employee when the alleged conduct is deemed to affect the interest of the university.
Penalties will be imposed by UNCW in accordance with procedural safeguards applicable to disciplinary actions against students (see Code of Student Life, Section II), faculty members (see Policies of Academic Freedom and Tenure, UNCW Section VII), and administrators and other employees (see Procedure No. PER 6.10 and Personnel Policies for Designated Employment Exempt from State Personnel Act-EPA Administrative Positions). The penalties to be imposed by the university may range from written warning with probationary status to expulsion from enrollment and discharge from employment; however, the following minimum penalties shall be imposed for the particular offenses described.

1. Trafficking Illegal Drugs
   a. For a first offense involving the illegal manufacture, sale or delivery, or possession with intent to manufacture, sell or deliver any controlled substance identified in Schedule 1, North Carolina General Statutes 90-89 or Schedule 11, North Carolina General Statutes 90-90 (including, but not limited to, heroin, mescaline, lysergic acid diethylamide, opium, cocaine, amphetamine, methaqualine), any student shall be expelled and any faculty member, administrator, or other employee shall be discharged.

B. For a first offense involving the illegal manufacture, sale or delivery, or possession with intent to manufacture, sell or deliver, any controlled substance identified in Schedules 111 through V1, North Carolina General Statutes 90-91 through 90-94, (including, but not limited to, marijuana, pentobarbital, codeine), the minimum penalty shall be suspension from enrollment or from employment for a period of at least one semester or its equivalent. For a second offense, any student shall be expelled, and any faculty member, administrator, or other employee shall be discharged.

2. Illegal Possession of Drugs
   a. For a fist offense involving the illegal possession of any controlled substance identified in Schedule 1, North Carolina General Statutes 90-89, or Schedule 11, North Carolina General Statutes 90-90-., the minimum penalty shall be suspension from enrollment or from employment for a period of at least one semester or its equivalent.
   b. For a first offense involving the illegal possession of any controlled substance identified in Schedules 111 through V1, North Carolina General Statutes 90-91 through 90-94, the minimum penalty shall be probation for a period to be determined on a case-by-case basis. A person on probation must agree to participate in a drug education and counseling program, consent to regular drug testing, and accept such other conditions and restrictions, including a program of community service, as the chancellor or chancellor's designee deems appropriate. Refusal or failure to abide by the terms of probation shall result in suspension from enrollment or employment for any unexpired balance or the prescribed period of the probation.

C. For the second or other subsequent offenses involving the illegal possession of controlled substances, progressively more severe penalties shall be imposed, including expulsion of students and discharge of faculty members, administrators, and employees.

3. Suspension Pending Final Disposition

   When a student, faculty member, administrator, or university employee has been charge by UNCW with a violation of policies concerning illegal drugs, he or she may be suspended from enrollment and/or employment before initiation or completion of regular disciplinary proceedings if, assuming the truth of the charges, the chancellor, or in the chancellor's absence, the chancellor's designee concludes that the person's continued presence within the university community would constitute a clear and immediate danger to the health or welfare of other members of the university community; provided that, if such a suspension is imposed, an appropriate hearing of the charges against the suspended person shall be held as promptly as possible thereafter.

6 Assessment

A. UNCW shall in its effort to continually assess the campus environment:
   1. Appraise the institutional environment as an underlying cause of drug abuse.
   2. Assess campus awareness, attitudes, and behaviors regarding the use of drugs and employ results in program development.
   3. Collect and use drug related summary information from police and security reports to guide program development.
   4. Collect and use summary health, counseling, and client information to guide program development.
   5. Collect summary data regarding drug-related disciplinary actions and use it to guide program development.

B. Annually, the chancellor shall submit to the Board of Trustees a report of campus activities related to illegal drugs for the proceeding year. The report shall include the following:
   1. A listing of major education activities conducted during the year;
   2. A report on any illegal drug related incidents, including any sanctions imposed;
   3. An assessment by the chancellor of the effectiveness of the campus program; and
   4. Any proposed changes in university policy on illegal drugs.

   The chancellor shall provide a copy of this report to the president.

Rules of the State Personnel Commission govern the disciplinary actions that may be taken against SPA employees. Under current commission regulations discharge, rather that suspension, is the applicable penalty for SPA employees in those instances where this policy otherwise requires suspension.

Student Life

STUDENT LIFE

UNIVERSITY UNION/UNIVERSITY CENTER

Student life is enriched at The University of North Carolina at Wilmington by a broad spectrum of activities, most of which occur in or around the University Union and University Center. The Union is a 53,000 square-foot facility which houses student organization offices, conference rooms, lounges, study areas, snack bar, rental lockers, the University Information Center, and an assortment of student services. Across the street from the Union is the new 43,000 square-foot University Center, with the U.S. Post Office, automatic teller machines, recreation and games facilities, lounges, a snack bar and space for large and small events. With the guidance of the Office of Student Activities, students are provided opportunities to plan, execute, attend, and evaluate a wide variety of programs and activities. With the belief that education is not bound to the classroom, it is the University Union's goal to educate, entertain and enlighten the university community, while providing a laboratory for student growth and an arena for development of cultural, social, recreational and leadership awareness.

STUDENT ACTIVITIES OFFICE

The Student Activities Office, located in the University Union, works to expand and complement the student's education by providing support to the approximately 80 student organizations that are officially registered on campus. The Student Activities Office assists organizations with the planning, execution and evaluation of events and activities that are not only entertaining, but also educational. The office provides expertise in the areas of leadership development programs, activity programming, contract negotiation, university policy and procedure explanations, budget preparation, publicity and promotion and organization development.

THE LEADERSHIP CENTER

The Leadership Center, located in the University Union, provides a comprehensive program which promotes student and organizational development and awareness of contemporary issues through leadership training, education and development activities. These activities are varied, but include workshops, retreats, publications, speakers, resources, seminars, consultations, and self-assessments. Through collaboration among Student Affairs staff and academic faculty, a cohesive program encourages students to recognize, evaluate and cultivate the potential strengths within themselves and others. These programs improve the quality of the overall campus experience by providing opportunities to learn about and practice leadership. Ultimately, the program goal is to create a dynamic process that will continue after the college experience and encouraging students to improve the world as active citizens in our changing democracy.

MINORITY AFFAIRS OFFICE

The Minority Affairs Office is responsible for the implementation of programs and activities designed to enhance the overall experiences of minority students at UNCW. Through direct sponsorship of or participation in Minority Visitation Day, orientation, workshops, recruitment, a minority mentor program, the tutorial assistance program, and other activities, the office provides an added dimension to the traditional services offered to UNCW students.

All students are invited to visit the office, in room 211 of the University Union, or call 919-395-3832, to discuss ways in which the office may be of service.

UNIVERSITY INFORMATION CENTER

The Information Center, located on the first floor of the University Union, provides a variety of information on campus, student and community activities. The center also sells discount movie tickets, concert tickets, and is the repository for campus lost and found items.

POSTAL SERVICES

A U.S. Post Office, which provides all postal services, is in the University Center; UNCW provides each student with a post office box where all mail (except grades) is delivered. This box is the official means by which students receive university mail.

STUDENT GOVERNMENT ASSOCIATION

The core of student life at the university is the Student Government Association. Officers and at-large senators are elected by the student body, and other senators by classes within the student body.

The association is a democratic organization, permitting expression of student opinion, working for the best interest of the university and upholding a high standard of morals and conduct. Student activity fee money supports the Student Government Association in its objectives and campus activities. The association is a member of the North Carolina Association of Student Governments.

ASSOCIATION FOR CAMPUS ENTERTAINMENT

ACE, the university program board, coordinates the various student-produced events on campus. It provides a diversified schedule of programs, activities, and events that promote and provide opportunities for educational, social, recreational, and cultural growth for students and the campus community. ACE is comprised of the following committees: Arts/Lecture, Film-Video, Concert, Cultural Arts, and Special Events. The board is a member of the National Association for Campus Activities.

STUDENT ORGANIZATIONS

A variety of social, academic, and service organizations enhance student life at UNCW. National sororities and fraternities are established on the campus to recognize students for their leadership and service activities. Several departments in the university have locally and nationally organized groups to stimulate interest in specific areas and to develop professional attitudes. Students are encouraged to contact the Office of Student Activities for specific information relative to a student organization.

MEDIA AND PUBLICATIONS

The *Seahawk,* the student newspaper, is published weekly. Its staff is composed entirely of students.

The *Atlantis,* a literary magazine, is published by students each semester.

The *Channel Marker* is a newsletter and calendar published monthly by the Student Activities Office to provide information regarding the dates and times of campus events and activities, to highlight student organization activities and to provide leadership information.

The *Student Handbook and Code of Student Life* is the primary source of information regarding university regulations and campus life.

WLOZ, the campus cable radio station, is completely run by students. The station broadcasts daily.

ATHLETICS

The university holds membership in the National Collegiate Athletic Association, Eastern College Athletic Conference, and the Colonial Ahtletic Association. Varsity intercollegiate teams are fielded for men in basketball, cross country, baseball, golf, soccer, tennis, swimming, and track. Varsity intercollegiate teams for women are fielded in basketball, softball, tennis, track, volleyball, swimming, golf, and cross county.

PERFORMING ENSEMBLES IN MUSIC

Membership is open to any student who has had instrumental or vocal experience, with the approval of the director of the particular ensemble. Any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit. Participation in either a vocal or an instrumental organization is required of all music majors.

Instrumental Ensembles

The UNCW Wind Ensembles is organized each semester to provide instrumental music experience for those students who desire it. The Wind Ensemble presents at least two concerts per year.

The UNCW Jazz Ensembles perform several concerts on and off campus each semester and perform an annual guest artist spring concert. Development of performance in the jazz idiom is stressed. These groups are open to any student who has had instrumental experience and the approval of the instructor. Auditions for each group are held at the beginning of each semester.

The Wilmington Symphony Orchestra, Inc., rehearses on campus and UNCW students may enroll and receive credit for participating in this group.

Faculty, student and senior recitals are presented free of charge and are open to the public as well as to all students.

The music division also maintains an Electronic Music Studio.

VOCAL ENSEMBLES

The University of North Carolina at Wilmington Concert Choir is organized each semester to provide vocal musical experience for those students who desire it. Membership is open to any student in the university, with the approval of the director, and any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit.

The University Concert Choir and small ensemble, The Chamber Singers, regularly provide music for university functions, appear on radio and television, and act as ambassadors from the university at a wide spectrum of community functions.

The UNCW Concert Choir's yearly activities have included at least two on-campus concerts and an extensive tour during the spring holidays. On occasion the choir has participated in large, joint stage productions of opera and musical comedies with the drama division.

THE UNIVERSITY THEATRE

The University Theatre is a student-oriented theatre dedicated to the continuing development of all theatre practitioners. It strives to produce a total theatrical experience to support the educational, creative, and recreational potential of a campus-based theatre.

Two major productions are presented each semester, with student productions presented on demand. Participation is not limited to dramatic art students, but is open to all university personnel and community residents.

JNIVERSITY READERS THEATRE

The University Readers Theatre provides students with an opportunity to participate in both he performance and technical production of a readers theatre script. Students attend open audition and may take part in the reading, publicity, lighting, set design and managing of the show.

One major production is usually presented each semester. During semesters when the eaders theatre course is offered, class members of that course will comprise the University Readers Theatre troupe. Interested students may inquire further at the Fine Arts Department.

FORENSICS TEAM

The University Forensics Team participates in a number of tournaments each year in addition to hosting the annual Blockade Runner Invitational Tournament on the UNCW campus. Students gain experience in public speaking, interpretation, research and argumentation. Membership is open to all students.

ART EXHIBITIONS

Monthly exhibitions of painting, sculpture and the graphic arts are held in the gallery-lobby of Kenan Hall. Student art is often featured. All exhibitions are open to the public without charge.

HONOR SOCIETIES AND AWARDS

THE HONOR SOCIETY OF PHI KAPPA PHI

Phi Kappa Phi is an honor society recognizing excellence of scholarship in all academic disciplines. A member of the association of College Honor Societies, it was founded at the University of Maine at Orono in 1897 and numbers about 250 chapters nationwide. Chapter Number 222 at The University of North Carolina at Wilmington was chartered on May 1, 1980. Seniors and second semester juniors are elected to membership based on integrity of character and class standing in the upper five percent for juniors or upper 10 percent for seniors.

PHI ETA SIGMA NATIONAL HONOR SOCIETY

Phi Eta Sigma is a national college scholastic honor society for freshmen. A member of the Association of College Honor Societies, it was founded at the University of Illinois on March 22, 1923. The University of North Carolina at Wilmington Chapter of Phi Eta Sigma was chartered on March 17, 1979.

The goal of Phi Eta Sigma is to encourage and reward high scholastic attainment among freshmen. At the close of their first academic year freshmen are eligible for membership if they have a cumulative grade point average of 3.5 or better with no grade lower than "C" on thirty hours or more course work at UNCW.

SIGMA DELTA PI, National Collegiate Hispanic Honor Society

Sigma Delta Pi is a national collegiate honor society for students of the Spanish language and Hispanic literature and culture. A member of the Association of College Honor Societies, it was established at the University of California, Berkeley, on November 14, 1919. The Rho Lambda Chapter of Sigma Delta Pi was chartered at The University of North Carolina at Wilmington on April 22, 1988.

The primary purpose of Sigma Delta Pi is to encourage and honor those who seek and attain excellence in the study of Hispanic language, literature and culture.

PSI CHI NATIONAL HONOR SOCIETY IN PSYCHOLOGY

Psi Chi is the national honor society in psychology. It was founded in 1929 in New Haven, Connecticut to encourage, stimulate and maintain excellence in scholarship, and to advance the science of psychology. Psy Chi is an affiliate of the American Psychological Association and a member of the Association of College Honor Societies. The University of North Carolina at Wilmington Chapter of Psi Chi was chartered on May 1, 1989 and is one of approximately 675 chapters nationwide.

HOGGARD MEDAL FOR ACHIEVEMENT

A medal, presented through the generosity of the late Dr. John T. Hoggard, is awarded annually to the graduating senior who, in the opinion of the faculty, has shown the most improvement during his or her years at the university. The medal is presented each year at commencement.

ALUMNI ASSOCIATION SCHOLASTIC ACHIEVEMENT AWARD

The Alumni Association of The University of North Carolina at Wilmington presents an award at commencement to the senior who has attained the highest academic average in the graduating class.

ADRIAN D. HURST AWARD

Established by the late Adrian D. Hurst, professor of mathematics, this award recognizes a UNCW junior or senior math major who has achieved the highest overall academic grade point average. The award is presented each spring in the form of a plaque.

BIOLOGICAL SCIENCES ACHIEVEMENT AWARD

This award was established by the faculty of the Department of Biological Sciences to honor annually the graduating senior biology major who has achieved the highest academic standing. The recipient is identified on a permanent plaque in Friday Hall.

THE WALTER SCHMID PHYSICS AWARD

This award has been established in honor of the late Walter Schmid, engineer and inventor, to reward a senior bachelor of science physics major for excellence in physics. The award consists of an engraved plaque and a physics encyclopedia.

WHO'S WHO AMONG STUDENTS IN AMERICAN UNIVERSITIES AND COLLEGES

The University of North Carolina at Wilmington participates in this national organization which lists in its annual directory outstanding campus leaders. Selection of the candidates is made by a nominating committee composed of faculty, administration and students.

Admissions

ADMISSIONS

The University of North Carolina at Wilmington seeks to admit students with the intellectual ability to perform in the collegiate community. Students must have the motivation and the determination to avail themselves of the learning experiences that will be beneficial to them if they are to attain both academic and personal enrichment. As a state-supported institution, the university is aware of its obligation to provide an educational opportunity to all qualified applicants who will benefit from the program of study offered on the Wilmington campus.

Applicants may apply to enter the university at the beginning of the fall or spring semester and at the beginning of each summer term. Applications for fall semester must be filed by May 1; applications for spring semester must be filed by December 1. Students desiring to enroll in summer school must make application prior to the summer session registration date. The academic qualifications of each applicant are carefully reviewed by admissions personnel in a conscientious effort to admit students who have the potential for further academic achievement and growth. The university does honor the College Board Application Fee Waiver form if properly signed.

Over enrollment or state budgetary constraints may require the restriction of admissions during a given year. This may require the adjustment of minimum requirements or the establishment of earlier application deadlines.

An immunization record for each newly admitted UNCW student is required by law to be on file at UNCW prior to enrollment. Students who do not enroll in the term for which they were admitted will have the offer of admission cancelled. A written request for consideration for a different term must be sent to the Office of Admissions by the application deadline date for that term.

APPLICATION DATES

A. For Freshman, Transfer, and Unclassified Applicants for Fall, 1992

1. Application complete by December 1; Decision mailed by February 15.
2. Application complete by February 1; Decision mailed by April 15.
3. Applications received/or completed after February 1, and up to May 1, will be reviewed after April 15, on a "space available" basis. Decisions on these applications will be mailed on a rolling basis.
4. **Non-refundable $25.00 tuition deposit due May 1 from all admittees intending to enroll at UNCW in the Fall, 1992.**

B. For Re-Enrolling Students for Fall, 1992

1. Apply by May 1; Decision by June 30.
2. No tuition deposit required.

C. For All Spring (January) Semester Applicants, 1993

1. Apply by December 1; Decision by December 30.
2. Tuition deposit due December 30.

D. For all Summer Session(s) Applicants, 1993

Summer Session I and II Apply by May 1; Rolling Decision.
No tuition deposit—full payment due at registration.

:. For Permission (Visitor) Students for Summer I and Summer II, 1992

Summer Session I	Apply prior to May 1.
Summer Session II	Apply prior to June 1.

No tuition deposit required from Permission/Visitor Students.

ADMISSIONS-FRESHMEN

The minimum freshman requirements for consideration for admission to The University of lorth Carolina at Wilmington are:

(1) Graduation from an approved or accredited high school, or a GED certificate**.

(2) A satisfactory score on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT).

(3) An overall "C" average on all work attempted in grades 9-12.

(4) Four (4) course units in English, emphasizing grammar, composition, and literature;

Three (3) course units in mathematics, including:
-algebra I
-algebra II, and
-geometry, or a higher level mathematics course for which algebra II is a prerequisite

Two (2) course units in social studies, including:
(1) unit in U.S. History

Three (3) course units in science, including:
one (1) unit in a life or biological science (for example, biology)
one (1) unit in a physical science (for example, physical science, chemistry, physics)
one (1) laboratory course.

*Two (2) course units in one foreign language

*Students who meet all minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and/or 102 before they may graduate with the baccalaureate degree.
**GED candidates must have been out of school two full years since their class graduated.
***Students who do not have 1 unit in U.S. History may be admitted with a history deficiency to be made up by the end of the sophomore year.

pplication Procedure for Freshmen

Applicants are required to comply with the following:

1. Submit a completed application form by the deadline date. A $15.00 NON-REFUNDABLE pplication fee must accompany the application.

2. Have the secondary school officials submit an official transcript of secondary school ork or GED. The transcript must be sent directly to the Office of Admissions, The University f North Carolina at Wilmington, Wilmington, North Carolina 28403-3297.

3. Take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or e ACT of the American College Testing Program. Because of deadlines for filing application take the tests, arrangements must be made well in advance of the testing date so that e application is received by the testing company in time. Applicants are accepted to UNCW n the basis of their junior or senior SAT or ACT scores. For information about the SAT, ontact the secondary school guidance counselor or write or call College Board ATP, P. O.

Box 592, Princeton, New Jersey 08540, (609) 771-7600. Students who live in the Western, Southwestern or Pacific Coast states should write or call College Board ATP, P. O. Box 1025, Berkeley, California 94701, (415) 849-0950. For information about the American College Testing Program, write The College Testing Program, Program Services Department, P. O. Box 168, Iowa City, Iowa 52243. It is important that the high school transcript, or GED, and test scores reach the university by the application deadline date so that all matters relating to the application may be complete before the opening of the semester in which the student expects to enroll.

ADMISSIONS-TRANSFER STUDENTS

Students wishing to transfer to The University of North Carolina at Wilmington from another institution must meet the following requirements for admission: (1) must be eligible to return to the institution last attended and (2) must have attained at least a C" average (2.0 on 4.0 system) based on all courses attempted and on all transferable courses at all institutions attended. Transfer students with less than 24 semester hours (or 36 quarter hours) of transferable credit must also meet the freshman entrance requirements. Students seeking admission by transfer of credits are required to have all transcripts of previous college or university work forwarded to the Office of Admissions by the registrar of each institution they have attended. Even though no transfer of credit may be involved, all previous college or university work must be certified by transcripts or records of attendance. An official high school transcript or GED must also be submitted. Transfer courses will not be accepted from non-accredited schools, nor from business, trade, vocational or technical schools, except by previous contractual agreement with UNCW.

Application Procedure for Transfer Students

Students wishing to transfer are required to comply with the following procedures:

1. Submit a completed application form by the application deadline date. A $15.00 NON-REFUNDABLE application fee must accompany the application.
2. Submit a completed university questionnaire. This questionnaire is included in the transfer admissions packet.
3. Have an official transcript from each college or university attended, including summer school, submitted. It is the applicant's responsibility to request that the Registrar of each institution attended send an official transcript directly to the Office of Admissions by the application deadline date.
4. Have an official high school transcript or GED, including test scores, sent to the Office of Admissions by the application deadline date.

Official credit evaluation of transcripts will be done after admission when tuition deposit or confirmation card is received from student.

ADMISSIONS-NURSING, BUSINESS ADMINISTRATION, EDUCATION

Admission to the Bachelor of Science degree programs in Nursing or Business Administration, and the Bachelor of Arts degree program in Education requires application to and acceptance by the School of Nursing, Cameron School of Business Administration, or School of Education in addition to acceptance by the university.

ADMISSIONS-FORMER STUDENT (Re-enrolling)

Former UNCW students who wish to return to the university must apply to the Office of Admissions for readmission prior to May 1 for the fall semester or December 1 for the spring semester. Those who have attended another college or university since their last enrollment

t UNCW are required to submit official transcripts from such institutions before they can be onsidered for readmission. **A "C" average (2.0 out of 4.0 system) must have been ttained on all work from other institutions attended.** Any student who leaves the uniersity and does not register for at least one full semester must apply for readmission by he application deadline date.

he Three-year Rule

Any UNCW degree student who has been out of school for at least three years and has ot attended any other institution since leaving UNCW is eligible to re-enter under the "threeear rule." The three-year rule is available only for students who have less than a 2.00 grade oint average. Any former student of an accredited college or university who has not attended chool for at least three years is also eligible to enter UNCW under the "three-year rule."

The student who elects to have the three-year rule applied will have neither a quality point eficit to overcome, nor hours of credit for those courses in which "D" grades were attained. nly courses in which a grade of "C" or better was earned will be counted toward graduation. evertheless, this option will not alter the student's original academic record.

The quality point average will begin at the time studies are resumed, and the student will e required to maintain a "C" average on a semester basis to be eligible to continue. Each ummer session counts as a semester. Degree requirements will be those in effect at the me the student reenrolls.

The three-year rule option must be exercised at the time the student applies for admission the university. Once exercised, it may not later be reversed.

DMISSIONS-UNCLASSIFIED STUDENTS

Individuals may enroll in the university as unclassified students by meeting the appropriate equirements for admission as stated below:

1. A transfer student who has not been enrolled in an institution of higher education for at least one year and who has not been academically suspended within the last three years may apply for admission as an unclassified student.
2. A high school graduate who has not attended an institution of higher education and has been graduated at least two years may apply for admission as an unclassified student. GED candidates must have been out of school two full years since their class graduated.
3. Official college transcripts (transfers) and high school transcript or GED (transfers and freshmen) must be sent to the Office of Admissions by the application deadline date.

Students who enroll as unclassified students may take any undergraduate course as long s the prerequisite listed in the course description is honored. Unclassified students are mited to two courses per semester or summer term. An unclassified student may apply for dmission as a degree candidate upon completing a minimum of 15 semester hours with a C" average on all work attempted. The student must complete English 101-102 and three emester hours of basic mathematics with a "C" or better before being considered for dmission as a degree candidate. An unclassified transfer student who has completed Engsh 101-102 and three semester hours of basic mathematics with a "C" or better will be onsidered as having met this requirement. However, requirements for transfer students to ecome degree candidates will vary depending on the previous college performance.

To avoid delay in having applications considered for change-over admission to degree andidates, unclassified students are advised to apply prior to the application deadline

established for the semester. The maximum number of hours allowed students in the unclassified category is 30 semester hours. When this limit is reached, the students must be eligible to apply for admission consideration as degree candidates or terminate their enrollment at the university.

Unclassified students are subject to the academic regulations of the university as applicable. Unclassified students are not eligible for some federally funded financial aid programs.

ADMISSIONS-SPECIAL STUDENTS

Any individual who already possesses a degree from a four-year accredited college and wishes to enroll for an undergraduate course at UNCW or any individual with a degree who wishes to work toward a second baccalaureate degree must apply to the Office of Admissions before the application deadline date. An official transcript from the degree-granting institution must be sent from that institution to the Office of Admissions by the deadline date. Second degree candidates must have transcripts from all colleges attended submitted by application deadline date, as well as the official high school transcript or GED sent directly from the high school.

ADMISSIONS-PERMISSION/VISITING STUDENTS

During the summer sessions, students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. Applicants from other colleges or universities must obtain prior written approval from their dean to take courses at UNCW. The university assumes no responsibility in determining a student's course selection when such credits are to be transferred elsewhere. Summer visitor applications and schedules are available by February of each year from the Office of Academic Affairs or the Admissions Office. Enrollment by permission from another institution in no way obligates the university to continue one's enrollment at UNCW after the expiration of the permission period. A student may not continue to attend as a permission/visitor student beyond two consecutive summer sessions. To apply for fall or spring semester visitor status, transfer requirements must be met. Application deadline dates apply for permission/visiting students.

ADMISSIONS-SPECIAL HIGH SCHOOL STUDENTS

Selected high school seniors who wish to pursue an academic program on the collegiate level while attending high school may enroll at UNCW if they meet the qualifications for participation in this program. Because of distance, this program is available primarily to students in the Wilmington area. Special applications for admission are available in the office of the high school counselor. Students may enter this program at the beginning of the fall, spring or summer terms. Application deadline dates must be honored.

ADMISSIONS-INTERNATIONAL STUDENTS

The University of North Carolina at Wilmington welcomes interest and inquiry from international students. In addition to meeting regular freshman or transfer academic admission requirements, international students must present evidence of their ability to speak, read and write the English language and to meet fully the financial obligations associated with their study at the university. Students from foreign countries must present the results of the TOEFL examination (Test of English as a Foreign Language) as a part of their application for admission. A financial responsibility statement and proof of accident and hospital insurance must be submitted. All materials for admission consideration must be in the Office of

dmissions as least six (6) months prior to the date of registration for the entering semester r term. It is recommended that international students plan to begin their studies in a fall emester.

DMISSIONS-SENIOR CITIZENS

Residents of North Carolina age 65 or older who meet applicable admission requirements ay enroll tuition free on a space available basis. The availability of class space cannot be etermined until after registration.

DMISSIONS-AUDIT STUDENTS

Students who wish to take courses without receiving credit should apply to the Office of e Registrar immediately after the semester registration date. Audit students are admitted n a "space-available" basis.

DMISSIONS-GRADUATE STUDENTS

All inquiries concerning admission to graduate programs should be directed to the Gradate School. Admissions requirements are stated in the Graduate Catalogue.

UNCW cooperates with North Carolina State University in offering a Ph.D. program in arine science. The degree is awarded by NCSU, but students complete part of their course ork and their dissertation research at UNCW. The program encompasses the disciplines f marine biology, chemistry and geology. Supporting facilities at UNCW include the Center r Marine Science Research. Contact the UNCW Graduate School for details and application rocedures.

ONDISCRIMINATION POLICY

UNCW is dedicated to equality of opportunity within its community. Accordingly, UNCW oes not practice nor condone discrimination in any form against students, employees, or pplicants on the grounds of race, color, national origin, religion, sex, age, handicap or eteran status. UNCW commits itself to positive action to secure equal opportunity regardless f those characteristics. For additional information, contact the federal compliance officer.

AFETY AND HEALTH PROGRAM

UNCW's safety program complies with the State Occupational Safety and Health Act of 973.

Any student who supplies false or misleading information or who conceals pertinent facts in order to enroll in The University of North Carolina at Wilmington will be subject to immediate dismissal from the university.

Expenses

EXPENSES

The Board of Governors of the University of North Carolina reserves the right to change the charges for tuition fees and the room and board rate at any time without prior notice.

TUITION AND FEES (In effect at time of publication)

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

Full-Time Charges Per Semester (12 or more semester hours):

	In-State Students	Out-of-State Students*
Tuition	$260.00	$2,505.00
Mandatory Fees	333.75	354.50
Total	$593.75	$2,859.50

The mandatory fees shown above support the following activities:

Athletic Fee	$91.50	$91.50
Health Services	$49.00	$49.00
SGA	$19.00	$19.00
Student Union	$50.50	$50.50
Intramurals	$6.00	$6.00
Postal	$4.00	$4.00
Physical Activities	$18.00	$18.00
Cultural Events	$5.00	$5.00
Student Union Facilities Debt	$45.00	$45.00
Physical Education Facilities Debt	$25.00	$25.00
System-wide Academic Fee	$20.75	$41.50
Sub Total	$333.75	$354.50

Certain courses have additional fees which increase the semester charges shown above. These fee courses are indicated in the course schedule for each semester.

Other fees:

Application Fee (to accompany application, nonrefundable)	$15.00
Transcript Fee	2.00
Graduation Fee	35.00

Undergraduate students registering for 12 or more semester hours will be charged at the full-time rate as shown above. Students scheduling fewer than 12 semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students*
1-5	$126.75	$693.00
6-8	415.00	1,548.25
9-11	523.50	2,223.25

*See information on residency at the end of this section

The privileges of students taking fewer than six hours per semester will be restricted to class attendance and use of the library; however, by paying a Special Use Fee of $18.00 per semester, these students will be entitled to use all physical education facilities. No degree, diploma, transcript of credit, or grades will be furnished a student until all financial obligations to the university, other than student loans, have been paid. All previously incurred expenses and accounts at the university must be paid in full prior to preregistration or registration for a new term.

ON-CAMPUS LIVING

The university has residence hall facilities for approximately 2,000 students in five modern, conveniently located residence halls, 13 apartment buildings, and seven suite-style buildings. All rooms are air-conditioned and furnished, and laundry facilities are available. Residence hall, apartment and suite students are required to participate in the university dining hall program under one of the two meal plans. The university operates a modern, air-conditioned cafeteria building. Short-order food service is available in the Hawk's Nest located in the University Union, in the Center Stage Cafe located in the University Center, specializing in pizza and subs, and the convenience store located in apartment building M. Service is on a cash basis for non-boarding students. The Housing and Food Service operations are closed during Thanksgiving, Christmas, and spring breaks.

Meal Plan Options

A meal plan is required for all students living on campus. The options available are listed below. The student identification card also serves as the student meal card and must be presented at every meal. Student meal cards are not transferable to another student or guests.

Plan A: 9 meals and $100.00 balance = $650.00

Any 9 meals during the 7 day week at Wagoner Dining Hall plus a $100 cash transferability that can be used at the Hawk's Nest, convenience store, Center Stage Cafe, ITZA PIZZA, or for guests at Wagoner Dining Hall. Additional cash may be added to the card at the student's discretion.

Plan B: 19 meals per week = $745.00

Allows you to eat 19 meals per week, 3 meals a day Monday through Friday, brunch and dinner on Saturday and Sunday. Students may opt to add cash for ($25 minimum) cash transferability in the Hawk's Nest, covenience store, Center Stage Cafe, ITZA PIZZA or for guests at Wagoner Dining Hall.

Declining Balance Program

Students on either meal plan can put cash on their meal card by contacting the Housing and Food Service Office in Wagoner Dining Hall. A minimum of $25 can be placed in your account to be used at your discretion. Any balance left on the card at the end of the fall semester will be carried over to the spring semester. Any money left on the card at the end of the spring semester will be forfeited.

Food services are also available to non-resident students seven days a week. Off campus students have the choice of paying cash for meals or purchasing a meal plan through the Housing and Food Service Office.

1991-1992 SEMESTER ROOM AND BOARD RATES

Belk, Graham, Hewlett and Schwartz	
with 9 meal plan	$1,560.00
with 19 meal plan	$1,655.00
Galloway	
with 9 meal plan	$1,570.00
with 19 meal plan	$1,665.00
Apartment	
with 9 meal plan	$1,770.00
with 19 meal plan	$1,865.00
Double Suite	
with 9 meal plan	$1,670.00
with 19 meal plan	$1,765.00
Single Suite	
with 9 meal plan	$1,750.00
with 19 meal plan	$1,845.00

This contract is for the full academic year consisting of both fall and spring semesters. Room and board fees are per semester costs. Students entering into this agreement in the fall semester are liable for the room and board charges for the spring semester. No refund of room charges will be made once a student officially moves into a residence hall/apartment/suite. The university reserves the right to change the room and board rates without prior notice.

An advance room reservation deposit of $100.00, to be applied to the room and board account, must be remitted by each applicant, along with the complete application for room and board.

Those interested in obtaining information should contact:

Housing and Food Services Office
The University of North Carolina at Wilmington
601 South College Road
Wilmington, North Carolina 28403-3297

SUMMER SESSION

Summer session tuition, fees, refund policy, and room and board rates will be announced in the Summer Session Bulletin.

REFUNDS-TUITION

Students who officially withdraw from the university on or before the last day of the registration (Drop/Add) period will receive a refund of the amount paid.

Students withdrawing from the university after the Drop/Add period will be charged 10 percent of all semester charges for each week of classes that have been held that semester. This weekly charge begins with the first day of scheduled classes regardless of the actual date of enrollment.

No refunds will be made for withdrawals after the end of the ninth week of scheduled classes.

This refund policy applies to complete withdrawals from UNCW. Students who simply reduce their course load after the Drop/Add period, will receive NO refund or reduction of fees whatsoever.

REFUNDS-FINANCIAL AID

Students who receive financial aid are not given refunds on financial aid received when harges are prorated due to withdrawal.

REFUNDS-HOUSING

Housing arrangements are effective for the full academic year. Agreements made subequent to the beginning of the fall semester remain in effect until the close of the spring emester. Housing deposit and charges will not be refunded except as provided for below:

1. **New Students (Incoming Freshmen and Transfers)** - If a new student, after remitting ne deposit and being accepted to on-campus housing, decides not to live on campus and ives notice of this decision in writing by May 15, 1991 in the case of application for the fall emester, or at least one month prior to the semester in case of the application for spring emester, the deposit shall be refunded, less a $25.00 administrative charge. Requests for efund received after May 15, 1991 will be denied and the $100.00 deposit forfeited. This ondition also applies to students remitting the deposit and being accepted to on-campus ousing after May 15, 1991.

2. **Returning Students (students currently or previously enrolled at UNCW)** - The 100.00 housing deposit is non-refundable to returning students after being accepted to on-ampus housing. (Exceptions being marriage, transferring to another institution or withdrawal om UNCW - less $25.00 administrative fee). Notification must be received in the Housing ffice, in writing, by May 15, 1991.

3. Room rent for either semester will not be refunded once a student officially moves into residence hall/apartment/suite.

4. A pro-rata refund of meal plan charges will be made to students who officially withdraw om the university.

RESIDENCE STATUS FOR TUITION PURPOSES

The basis for determining the appropriate tuition charge rests upon whether a student is resident or a nonresident for tuition purposes. Each student must make a statement as to e length of his or her residence in North Carolina, with assessment by the institution of that tatement to be conditioned by the following:

Residence. To qualify as a resident for tuition purposes, a person must become a legal esident and remain a legal resident for at least 12 months immediately prior to classification. hus, there is a distinction between legal residence and residence for tuition purposes. urthermore, 12 months legal residence means more than simple abode in North Carolina. particular it means maintaining a domicile (permanent home of indefinite duration) as pposed to maintaining a mere temporary residence or abode incident to enrollment in an stitution of higher education." The burden of establishing facts which justify classification a student as a resident entitled to in-state tuition rates is on the applicant for such clasfication, who must show his or her entitlement by the preponderance (the greater part) of e residentiary information.

Initiative. Being classified a resident for tuition purposes is contingent on the student's eeking such status and providing all information that the institution may require in making e determination.

Parent's Domicile. If an individual, irrespective of age, has living parent(s) or courtppointed guardian of the person, the domicile of such parent(s) or guardian is, prima facie, e domicile of the individual; but this prima facie evidence of the individual's domicile may may not be sustained by other information. Further, nondomiciliary status of parents is

not deemed prima facie evidence of the applicant child's status if the applicant has lived (though not necessarily legally resided) in North Carolina for the five years preceding enrollment or re-registration.

Effect of Marriage. Marriage alone does not prevent a person from becoming or continuing to be a resident for tuition purposes, nor does marriage in any circumstances insure that a person will become or continue to be a resident for tuition purposes. Marriage and the legal residence of one's spouse are, however, relevant information in determining residentiary intent. Furthermore, if both husband and his wife are legal residents of North Carolina and if one of them has been a legal resident longer than the other, then the longer duration may be claimed by either spouse in meeting the twelve-month requirement for in-state tuition status.

Military Personnel. A North Carolinian who serves outside the State in the armed forces does not lose North Carolina domicile simply by reason of such service. And students from the military may prove retention or establishment of residence by reference, as in other cases, to residentiary acts accompanied by residentiary intent.

Grace Period. If a person (1) has been a bona fide legal resident, (2) has consequently been classified a resident for tuition purposes, and (3) has subsequently lost North Carolina legal residence while enrolled as a public institution of higher education, that person may continue to enjoy the in-state tuition rate for a grace period of twelve months measured from the date on which North Carolina legal residence was lost. If the 12 months end during an academic term for which the person is enrolled at a State institution of higher education, the grace period extends, in addition, to the end of that term. The fact of marriage to one who continues domicile outside North Carolina does not by itself cause loss of legal residence marking the beginning of the grace period.

Minors. Minors (persons under 18 years of age) usually have the domicile of their parents but certain special cases are recognized by the residence classification statute in determining residence for tuition purposes.

(a) If a minor's parents live apart, the minor's domicile is deemed to be North Carolina for the time period(s) that either parent, as a North Carolina legal resident, may claim and does claim the minor as a tax dependent, even if other law or judicial act assigns the minor's domicile outside North Carolina. A minor thus deemed to be a legal resident will not, upon achieving majority before enrolling at an institution of higher education, lose North Carolina legal residence if that person (1) upon becoming an adult acts, to the extent that the person's degree of actual emancipation permits, in a manner consistent with bona fide legal residence in North Carolina and (2) begins enrollment at an institution of higher education not later than the fall academic term following completion of education prerequisite to admission at such "institution." (b) If a minor has lived for five or more consecutive years with relatives (other than parents) who are domiciled in North Carolina and if the relatives have functioned during this time as if they were personal guardians, the minor will be deemed a resident for tuition purposes for an enrolled term commencing immediately after at least five years in which these circumstances have existed. If under this consideration a minor is deemed to be a resident for tuition purposes immediately prior to his or her eighteenth birthday, that person on achieving majority will be deemed a legal resident of North Carolina of at least 12 months duration. This provision acts to confer in-state tuition status even in the fact of other provisions of law to the contrary; however, a person deemed a resident of 12 months duration pursuant to this provision continues to be a legal resident of the State only so longs as he or she does not abandon North Carolina domicile.

Lost but Regained Domicile. If a student ceases enrollment at or graduates from an institution of higher education while classified a resident for tuition purposes and then both

abandons and reacquires North Carolina domicile within a 12-month period, that person, if he or she continues to maintain the required domicile into re-enrollment at an institution of higher education, may re-enroll at the in-state tuition rate without having to meet the usual 12-month durational requirement. However, any one person may receive the benefit of this provision only once.

Change of Status. A student admitted to initial enrollment in an institution (or permitted to re-enroll following an absence from the institutional program which involved a formal withdrawal from enrollment) must be classified by the admitting institution either as a resident or as a nonresident for tuition purposes prior to actual enrollment. A residence status classification once assigned (and finalized pursuant to any appeal properly taken) may be changed thereafter (with corresponding change in billing rates) only at intervals corresponding with the established primary divisions of the academic year.

Transfer Students. When a student transfers from one North Carolina public institution of higher education to another, he or she is treated as a new student by the institution to which he or she is transferring and must be assigned an initial residence status classification for tuition purposes.

The initial classification of undergraduate students as in-state or out-of-state residents for tuition purposes is made by the Admissions Office. Appeals for in-state status may be made to the campus appeals body, Out-of-State Tuition Appeals Committee. University regulations governing residential classification of students are set forth in detail in *A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes.* Each enrolled student is responsible for knowing the contents of this manual. Copies of the manual are available for inspection upon request in the Admissions Office and in the Randall Library.

Financial Aid

FINANCIAL AID

The UNCW Financial Aid Office administers a program of financial assistance which seeks to meet the needs of all enrolled students. While the program provides for the recognition of talent and outstanding student achievement, its primary objective is to assist students with demonstrated need. In assisting students, the office analyzes and validates the financial need of the applicants and their families through the use of financial statements, related documents, and the interview process. Utilizing this information, awards are constructed to enable a student to bridge the gap between the student and family's resources and the cost of attendance. This assistance may be in the form of scholarships, grants, loans, work study jobs, or a combination of any of these programs.

To apply for financial aid a student must complete the College Scholarship Service Financial Aid Form and submit other documentation as may be requested by the Financial Aid Office. Detailed information on programs, policies, and procedures are printed in "Your Guide to Financial Aid" which may be obtained from the Financial Aid Office. Questions concerning the financial aid program at UNCW should be directed to the Financial Aid Office, The University of North Carolina at Wilmington, 601 S. College Rd., Wilmington, N.C. 28403-3297, (919) 395-3177.

MINORITY PRESENCE GRANT PROGRAM

Under the Board of Governors general Minority Presence Grant Program, black students may be eligible for special financial assistance if they are residents of North Carolina, enrolled for at least three hours of degree-credit course work, and demonstrate financial need.

AMERICAN INDIAN STUDENT LEGISLATIVE GRANT

The General Assembly of North Carolina has provided funds for a number of grants to needy resident North Carolina Indian students. Eligibility is limited to degree students who maintain cultural identification as an American Indian through membership in an Indian tribe recognized by the State of North Carolina or by the federal government or through other tribal affiliation.

GRANTS

Pell Grants provide federal grants for students who show need for assistance in attending college. This grant is intended to cover the period required to complete the first undergraduate baccalaureate degree; however, students are limited to five full years of entitlement under this grant program. Students must be enrolled for at least six hours and must be making satisfactory progress in their academic program. In addition, a student must be a U.S. citizen or in the United States for other than a temporary purpose. Awards are based on a national formula applied uniformly to all applicants.

The Supplemental Educational Opportunity Grant Program provides aid to students who show need for assistance in attending college. Supplemental grants range in value from $100 to $4,000 per year, with the cumulative maximum of $12,000. To be eligible for a grant at UNCW, a student must be enrolled in a degree program and must be a citizen or permanent resident of the United States. The application and Financial Statement must demonstrate exceptional financial need. Full-time student applicants are given priority when funds are limited.

The North Carolina Student Incentive Grant Program is administered by College Foundation, Inc., for legal residents of North Carolina accepted or enrolled full time and in good

standing in an undergraduate program of study. Student must demonstrate substantial financial need as determined through the Financial Aid Form of the College Scholarship Service. Students should see that the completed Financial Statement is sent with the processing fee as soon after January 1 as possible, but not later than March 15; late filers will be considered if funds are available.

Athletic Grants-In-Aid are awarded to qualified students selected by members of the coaching staff. Additional information may be obtained by writing to the director of athletics.

The North Carolina National Guard Tuition Assistance Program is state funded Tuition Assistance Program for active members of the North Carolina Guard. This program will reimburse eligible guardsmen the cost of tuition per academic year for a maximum of four years. For additional information contact:

Office of the Adjutant General
North Carolina National Guard
Attn.: AGRR
P.O. Drawer 26268
Raleigh, N.C. 27611
(919) 733-3770—Ext. 175

SCHOLARSHIPS

Students wishing to apply for a particular scholarship(s) should submit a general scholarship application to the UNCW Financial Aid Office unless a different procedure is outlined in the scholarship descriptions below.

If need is part of the eligibility criteria a financial aid form will also need to be filed. Priority will be given to applicants who apply by March 15.

University Scholarships

University scholarships are awarded by the Financial Aid Office to financial aid applicants demonstrating financial need and academic achievement. These scholarships are awarded on a competitive basis so that those students with the greatest need and the highest grade point average of those applying are generally awarded. Automatic consideration is given to all applicants. Competition for these scholarships is intense and generally results in higher grade point average requirements.

Dr. A. P. and Frances Dickson Scholarship is awarded annually to a full-time undergraduate student who currently resides in Hoke County, North Carolina. Recipients are chosen by the Financial Aid Office on the basis of academic standing and financial need. Awards are nonrenewable and vary in amount according to income available from the Trust.

James Lee Love Scholarship is awarded annually to a full-time North Carolina resident undergraduate student. Recipients are chosen by the Financial Aid Office on the basis of academic standing and financial need. Awards are nonrenewable and vary in amount according to income available from the Trust.

The Eva McMillan Ross Scholarship provides an annual award to a female who is a New Hanover County high school graduate with a 3.5 or better grade point average. The scholarship is renewable if a 3.2 grade point average is maintained.

UNCW Scholarships are awarded to students for talent and outstanding achievement. These scholarships are awarded through the Financial Aid Office by various departments, organizations, and campus publications.

The H.M. & Pearl Kyle Foundation Scholarship is awarded annually to a worthy and deserving student. It is the intent of the donors that the scholarship be awarded to a person who can establish some sense of need and who is from eastern North Carolina or eastern

South Carolina. Because the scholarship may be renewed on the strength of academic performance and continued need, a new recipient may not be named every year.

The Pilot Club Scholarship is awarded annually by the Pilot Club of Wilmington to a worthy and deserving student. Students with a handicap are given special consideration in the awarding of this scholarship.

The University Women of UNCW Scholarship is awarded annually to a female undergraduate student enrolled full time who has completed at least 60 semester hours. First consideration will be given to the student who demonstrates academic ability with financial need as second consideration. The non-traditional student will be given priority.

The Lucile Murchison Marvin Scholarship is awarded each year to two students at UNCW who have grade point averages of at least 3.0 and who demonstrate scholarship ability and financial need.

The Champion McDowell Davis Scholarship is available to students from any major. This scholarship covers tuition and fees, books and other select expenses and is awarded to students based on academic achievement, leadership potential and demonstrated financial need. A selection committee is charged with choosing the recipients each year.

The Eliza Collins Scholarship is awarded yearly to several students who demonstrate scholastic ability and need.

The Henry Harrell, Sr., and Alma M. Harrell Scholarship is awarded annually to students who have a grade point average of 3.0 or better and have an exceptional financial need.

The Hans Langhammer Scholarship is an in-state tuition and fee scholarship designed to enhance the minority presence on the UNCW campus. The scholarship is available to students in any academic discipline but is restricted to undergraduate students. Consideration will be given to financial need and academic potential.

The C. M. and M. D. Suther Scholarship is awarded annually to deserving high school graduates who would not otherwise be able to attend college. The scholarship amount will be approximately $950 annually. Applicants must be N.C. residents with a 3.0 GPA or in the case of an entering freshman be in the top 25% of their graduating class.

The Devereux Haigh Lippitt Scholarship is awarded annually to a North Carolina student based on academic achievement. This scholarship covers the in-state cost of tuition and fees and is given in memory of Mr. Devereux Haigh Lippitt by his family.

The Elizabeth Dudley Urquhart Memorial Scholarship Fund provides a tuition and fees scholarship to an academically talented student who demonstrates financial need. The recipient must have completed the last two years of high school in a New Hanover County public school.

Eddie Godwin, III Memorial Scholarship of $1,000 is awarded to a graduate of New Hanover High School. Applicants must be able to demonstrate financial need through the regular financial aid process. Applicants should also show evidence of self help and acceptable academic standing. Though not required, athletic participation at the high school level is desirable.

The Alumni Association Academic Scholarship Program provides annual, renewable in-state tuition and fees scholarships based on academic achievement and potential. Students must be classified as North Carolina residents for tuition purposes. Applications, secured from the UNCW Alumni Affairs Office, must be completed and returned to that office by March 15.

The Mary Courtney Hardison Scholarship(s) are intended for female freshman students who are graduates of any accredited high school in New Hanover County. Preference will be given to female students who have been active in high school activities, including

rganized athletics. Recipient(s) shall be selected based on a combination of academic chievement and demonstrated financial need.

The New Hanover Memorial Hospital Auxillary Scholarship of $500 is awarded each ear to a student pursuing studies in a health related field. Candidates must be graduates f a New Hanover County high school, be of good character, and be active in school and ommunity activities. Entering freshmen must be in the top 10 percent of their graduating lass and have scored at least 900 on the SAT. In the event that more than one student ualifies academically, need shall be a determining factor. This scholarship is renewable ontingent on continuing satisfactory academic progress. Consequently, this scholarship ay not be open each year to new candidates.

The Rotary Club of Wilmington provides an annual scholarship to an undergraduate pplicant who demonstrates academic strength, good character traits, and financial need.

The Aaron and Elizabeth Silverman Scholarship Fund provides a tuition and fees cholarship to academically strong students. Scholastic achievement and graduation from n accredited North Carolina high school are the only criteria. The scholarship(s) can be warded to a prospective student or to those students currently enrolled.

The Wilmington Business and Professional Women USA Scholarship of $1,000 is warded annually to a female student who plans to pursue a business or professional career. pplicants must demonstrate financial need, academic achievement, and clearly stated ed- cational goals.

The Wilmington Women's Club Scholarship is awarded to a New Hanover County high chool graduate who demonstrates academic achievement and financial need. A recipient ay continue to receive this scholarship if a 3.0 grade point average is maintained.

Laurance Bell Scholarship is given annually by the Port City Chapter, National Associ- tion of Black Social Workers in memory of Laurance Bell. The scholarship is to be used to crease minority presence at UNCW. The number and amount of awards are determined y earnings of the fund. Recipients of the award are urged to repay the scholarship upon ntrance into the work force.

UNCW Bookstore Textbook Scholarships are awarded annually to two students in each cademic department. The recipients are selected by each department based on academic chievement and extracurricular activities. Each recipient is awarded a $125 UNCW Books- ore Textbook Scholarship Certificate which must be presented to the UNCW Bookstore when urchasing textbooks.

The Delta Sigma Theta Sorority Scholarship is an annual award to assist UNCW in creasing its minority female enrollment. Eligible students must be graduates of an ac- redited high school in either New Hanover, Pender or Brunswick counties. Recipients will e selected on the basis of academic achievement, community service, and school involve- ent.

OLLEGE OF ARTS AND SCIENCES SCHOLARSHIPS

The New Hanover Memorial Hospital Auxillary Scholarship provides an annual award a student majoring in a health related field. Academic merit and participation in extra- urricular activities are the primary criteria used with financial need being a secondary factor selecting the recipient.

The Benjamin R. and Edith B. Graham Scholarship is awarded annually to a marine iology or education major who graduated from an accredited Southeastern North Carolina igh school. The award shall be based on academic achievement with financial need being

a secondary factor. Inquiries should be made to the chairperson of the respective major department.

The Joseph Cyrus Awkard Award is a scholarship established by Joseph C. Awkard Jr., emeritus professor of psychology, to recognize academic achievement and campus leadership among students majoring in psychology.

The Department of Biological Sciences annually awards three scholarships. The Herbert and Shirley Mintzes Memorial Scholarship is awarded to the rising sophomore with the highest standing in the Principles of Biology course (BIO 110-111); the recipient is chosen by the course instructors. The Dovie P. Bowden Scholarship is awarded to a student of junior standing on the basis of scholarship and need; eligible students should contact the department chairperson to apply. The Franklin H. Allen Scholarship is awarded to a rising senior on the basis of grade point average and other evidence of achievement; the recipient is chosen by a faculty committee.

The Hutaff Scholarship Program awards annual scholarships to a student who has been accepted into the UNCW School of Nursing and four scholarships to students in the humanities. Recipients will be selected on demonstrated financial need and academic and leadership potential.

The Wilmington Coca-Cola Scholarship is awarded to a student enrolled in one of the humanities. Character, leadership and demonstrated financial need will be factors in determining recipients. Consideration will also be given to candidates who have shown evidence of self help.

The Ernest Stephen Prevost Scholarship is awarded to an undergraduate student majoring in chemistry. The recipient will be selected based on a demonstrated financial need and proven academic ability. For information contact the chairperson of the Chemistry Department.

The Cape Industries Scholarship is awarded to a chemistry major at UNCW who has a high grade point average. Interested students should contact the Department of Chemistry.

The LAQUE Scholarship is an annual scholarship awarded to a chemistry major. Students interested in applying for this scholarship should contact the chairperson of the Department of Chemistry.

The Wright Chemical Corporation Scholarship is awarded to a chemistry major. Students interested in applying for this scholarship should contact the chairperson of the Department of Chemistry.

The American Society for Quality Control Scholarship. The Wilmington section of the American Society for Quality Control has established an academic scholarship for a rising senior majoring in math with a strong background in statistics or for a rising senior in the field of business. The amount of the award will be the equivalent of in-state tuition for two semesters. Interested applicants should contact the chairperson of the Department of Mathematical Sciences.

The Helena R. Cheek Memorial Scholarship is awarded by the Department of Foreign Languages and Literatures to a student who demonstrates special ability in the area of foreign language study and overall academic excellence. This scholarship is given in memory of Helena R. Cheek by her family and friends.

The William F. Adcock, Jr., Music Scholarship is awarded to a student who plans to graduate from UNCW with an emphasis in music and who has no more than 36 hours to complete for graduation. The award will be based upon overall excellence in music, above-average academic record and acceptable performance standards.

The A. J. Fletcher Music Scholarship is a competitive scholarship awarded to music najors who demonstrate through audition and scholastic record high proficiency in music erformance and strong achievement in academic work.

The J. Rupert Bryan Scholarship is awarded to a political science major with financial eed. Candidates must be able to demonstrate creativity, curiosity, and academic worthiness.

The James E. L. Wade Scholarships in history and political science are awarded to igh school seniors who have a B average or above on high school work, an interest in istory or political science as a major, and financial need. For additional information, contact ne appropriate department chairperson.

The J. Marshall Crews Scholarship is awarded annually to a major in the Department f Mathematical Sciences. Selection is based upon academic excellence, extra-curricular ctivities, and faculty recommendation. Applicants seeking further information should contact ne Department of Mathematical Sciences.

The Fred Toney Scholarship is awarded each year based upon balloting by the faculty f the Department of Mathematical Sciences. Criteria include academic excellence and ex-acurricular activities. Inquiries should be directed to the chairperson of the Department of Iathematical Sciences.

The R & E Electronics Scholarship is a $1000 annual scholarship awarded to a soph-more minority student majoring in pre-engineering or a sophomore seeking a BS degree, order of preference, in Math, Physics, Medical Technology, or Computer Science. The tudent must have graduated from a North Carolina High School and must demonstrate cademic ability and financial need.

The Wilmington Arts Association Scholarship is awarded to a junior or senior majoring the arts division of the Department of Fine Arts. Academic excellence and artistic merit ill be criteria for determining recipients.

The R.F. Zimmerman/South Atlantic Services Scholarship is awarded annually to a hemistry major. The award includes in-state tuition, fees and a book allowance. The recipient ill be selected on the basis of academic achievement and documented financial need, as ell as good character and leadership potential.

AMERON SCHOOL OF BUSINESS ADMINISTRATION SCHOLARSHIPS

The W.A. Corbett Scholarship is awarded annually to a junior or senior in the Cameron chool of Business Administration with a grade point average of 3.0 or better who is planning career in the field of business. For information and application forms, contact the Office f Financial Aid or the dean of the Cameron School of Business Administration.

The William S. Holland Scholarship for accounting majors, established in honor of illiam S. Holland, retired partner of Cherry, Bekaert and Holland, Certified Public Account-nts, and a member of the first graduating class of Wilmington College, is awarded annually. or information and application forms, contact the chairperson of the Department of Ac-ountancy.

The Harold M. Cole Scholarship for accounting majors, is awarded to native born Moore ounty residents who are graduates of a secondary or preparatory school and in need of nancial assistance to attend school. The deadline for receipt of applications is March 15 r upcoming fall enrollment. For information and applications contact the Financial Aid Office.

The J. W. Jackson Scholarship has a $2,000 per year value and is restricted to a junior-enior or graduate student enrolled in the Cameron School of Business Administration. The cholarship is designed for students with high academic potential. Application can be made the Financial Aid Office. Students awarded this scholarship are eligible to reapply.

The Jesse L. Marshall Scholarship is awarded to a junior or senior in the Cameron School of Business Administration who has demonstrated both financial need and scholastic ability. Applicants may apply to the dean of the Cameron School of Business Administration.

The Lower Cape Fear Personnel Association Scholarship, established for students planning to concentrate in the study of management, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairperson of the Department of Management and Marketing.

The North Carolina National Bank Scholarship is awarded annually to a student with an indicated interest in a career related to banking and/or finance. For information and application forms, contact the Financial Aid Office or the dean of the Cameron School of Business Administration.

The Sales and Marketing Executives International Association (Cape Fear Chapter) Scholarship, established for students concentrating in the study of marketing, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairperson of the Department of Management and Marketing.

The United Carolina Bank Scholarship, established for students with an indicated interest in banking or finance, is awarded annually on the basis of scholastic ability, financial need, and recommendations by the faculty. For information and application forms, contact the chairperson of the Department of Economics and Finance.

The Sally R. Wilkins Scholarship is a $1,000 annual scholarship restricted to female students planning a career in business. The scholarship is designed for students having a demonstrated financial need and a clearly designed academic goal. Application can be made in the Financial Aid Office. This scholarship is non-renewable.

SCHOOL OF EDUCATION SCHOLARSHIPS

The Lee V. Landing Scholarships are awarded annually to elementary, middle school, or special education majors who have been accepted into the UNCW School of Education. Recipients are selected on the basis of academic achievement as first consideration with financial need a secondary factor.

The Delta Kappa Gamma Scholarship provides an annual award to a female junior or senior education major. The recipient must demonstrate financial need and a 2.0 or better grade point average.

The Benjamin R. and Edith B. Graham Scholarship is awarded annually to a marine biology or education major who graduated from an accredited Southeastern North Carolina high school. The award shall be based on academic achievement with financial need being a secondary factor. Inquiries should be made to the chairperson of the respective major department.

The Paul Douglas Teacher Scholarship Program authorized by the U.S. Congress provides college scholarships to outstanding undergraduates who have chosen to pursue teaching careers at the preschool, elementary, or secondary level. Applicants are evaluated on the basis of academic performance, leadership, extracurricular participation, and promise of service as a teacher. PDTS awards are valued at up to $5,000 annually and may be received for a maximum of four undergraduate academic years, subject to congressional appropriations. The amount of the PDTS award may not exceed the recipients' cost minus other financial aid received. This scholarship converts into a loan commitment at a rather high interest rate if the recipient does not fulfill the teaching commitment required by this award. Inquiries should be directed to the School of Education.

The N.C. Teaching Fellows Program is designed to identify talented students interested in teaching, and to assist those students in becoming teachers by the award of scholarship/loans for four years of undergraduate study, repayable through the means of service. Award recipients will receive annual awards of $5,000 for each of their four college years subject to legislative appropriation. Consideration under this program is given to entering freshman. Interested applicants should contact their high school guidance office.

The N.C. Prospective Teacher Scholarship/Loan Program provides assistance to prospective North Carolina teachers. The program provides a $2,000 per year loan which will be cancelled if the student teaches in North Carolina public schools after graduation. The program is administered by the Department of Public Instruction. Inquiries regarding the program should be directed to N.C. Prospective Teachers Scholarship Program, State Department of Public Instruction, Raleigh, NC 27611. To be eligible for this program a student must be enrolled for at least 12 hours and be a North Carolina resident.

The James Ozborn Carr Scholarship is awarded to students in the School of Education. Character and leadership potential will be factors in determining recipients. The scholarships are restricted to graduates of Southeastern North Carolina high schools. The scholarships are designed to attract and retain academically strong students.

The Ann Durant Walker Scholarship Award—The Alpha Psi Chapter of Alpha Delta Kappa awards a scholarship to a junior or senior majoring in special education. The scholarship is given in memory of Ann Durant Walker who helped develop the Special Education Program in New Hanover County.

The Sue McCall Boone Scholarship for education majors was established to provide a scholarship for a New Hanover County student who demonstrates a financial need at UNCW. The scholarship is named in honor of Miss Sue Boone, New Hanover educator, who contributed over 50 years of service in the community. The scholarship is awarded to one student biennially in the amount of tuition.

The Theta-Delta Kappa Gamma Scholarship will be awarded to an undergraduate student from southeastern North Carolina who has been accepted into the School of Education or is working toward a teaching certificate at UNCW. The scholarship will be based on academic achievement with need being a secondary factor. The scholarship is renewable if recipient maintains a 3.2 grade point average; therefore, this scholarship may not be open to a new candidate each year.

SCHOOL OF NURSING SCHOLARSHIPS

The Robertshaw Scholarship provides an annual award to an undergraduate student enrolled or planning to enroll in the School of Nursing. The recipient shall be selected based on academic merit and the scholarsip will be valued at the state rate for tuition and fees. For information, contact the dean of the School of Nursing.

The Whitworth Scholarship provides an annual award of $500.00 to a student enrolled or planning to enroll in the School of Nursing. The recipient shall be selected based on academic merit. For information, contact the dean of the School of Nursing.

The Nursing Education Scholarship/Loan Program provides assistance to prospective North Carolina nurses. The recipient must be able to demonstrate need through the regular financial aid process. The program provides loans which will be cancelled if the recipient practices full time in North Carolina after graduation. Applicants should contact the Financial Office for specific information.

The Edith Graham Toms Scholarship is a memorial scholarship awarded to an outstanding nursing student. This scholarship is valued at the in state rate for tuition and fees plus books and supplies. Applicants must be admitted into the School of Nursing.

The Jean Jordan Memorial Scholarship is awarded to a nursing student, second- or third-year medical technology student, or junior or senior pre-medical student who is a resident of New Hanover, Pender, or Brunswick County and who demonstrates financial need and scholastic ability.

The Hutaff Scholarship Program awards annual scholarships to a student who has been accepted into the UNCW School of Nursing and four scholarships to students in the humanities. Recipients will be selected on demonstrated financial need and academic and leadership potential.

The Forty and Eight Nursing Scholarship is an academic scholarship established by Voiture 245, the Forty and Eight of American Legionnaires, in joint memory of Voyageur Militaire John H. McInnis and Miss Dorothy Dixon, and is open to nursing students who graduated from high school in New Hanover, Pender, or Brunswick County.

The Ministering Circle of Wilmington awards scholarships on the basis of scholastic ability, financial need, and recommendation, to students accepted in the School of Nursing at UNCW.

The Juanita Borneman Memorial Scholarship, awarded to a student from rural North Carolina, approximates the cost of tuition.

The Billie Burney Memorial Scholarship, started by family and friends of the late Billie Burney, is awarded annually as a tuition scholarship to a student in the field of nursing.

The Louise Ogden Wright Nursing Scholarship is a $500 scholarship given annually by Mrs. Andrew Harriss in memory of her mother. The recipient is selected on the basis of financial need, academic record, and professed intention to pursue nursing as a career.

The Theresa Bentsen Warrick Memorial Nursing Scholarship is awarded to a nursing student demonstrating financial need and proved academic and clinical achievements. Applicants must be graduates from N. C. high schools and present an overall grade point average of at least 2.5.

EMPLOYMENT

The College Work-Study Program, which is federally funded, provides part-time jobs on the UNCW campus for students who have financial need and who must earn part of their education expenses. To be eligible for work-study, a student must be enrolled in a degree program and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need. Full-time student applicants are given priority when funds are limited.

The Institutional Work Program, also known as the Work Assistant Program, makes funds available for campus jobs for students. These funds are allocated to departments with the selection of student work assistants controlled by those departments. Students receiving any type of financial aid must receive clearance through the Financial Aid Office before accepting work positions under this program. Students interested in the program should direct inquiries to the department in which they prefer to work. Off-Campus Employment is coordinated by the Career Planning and Placement Center. The office publicizes specific job openings, makes individual referrals, announces recruiting visits, and keeps on file company literature, information about public and private schools, and state and federal government opportunities. Students interested in using the services of this office should register with the Career Planning and Placement Center to establish a credentials file.

LOANS

Supplemental Loans for Students

Supplemental loans provide funds for students to cover their college expenses in addition to those borrowed under the Stafford Loan program. These loans are available to independ-

ent undergraduate and graduate students who meet federal eligibility, the credit worthiness of the borrower is of primary importance. Students may borrow up to $4,000 per year for a cumulative total of $20,000. However, no student may borrow more than his cost of education minus other aid received. Repayment begins immediately with the first installment due 60 days after receipt of your money. A variable interest rate will be calculated annually based on a federal formula but cannot exceed 12 percent.

Parent Loans for Undergraduate Students

Parent loans may be secured to assist in covering educational costs. Parents may borrow up to $4,000 per year for a combined total of $20,000. However, a parent may not borrow any amount that would make the total amount of financial assistance that both the student and parent receive greater than the cost of attendance at UNCW. In determining eligibility, the credit worthiness of the borrower is of primary importance. A variable interest rate will be calculated annually based on a federal formula. The new rate will begin each year but cannot exceed 12 percent.

Stafford Student Loans provide students with long-term, low-interest loans. Under this program a student may borrow up to $2,625 for each of the first two years in school and $4,000 for each of three additional years. All borrowers are required to complete the regular financial aid process and establish their eligibility on a basis of financial need. Repayment of these loans begins six months after a student ceases to be enrolled at least half time and borrowers are permitted up to ten years for repayment. The interest on the loan begins at the time of repayment and is calculated at eight percent but rises to ten percent during the fifth year of repayment. Students determined eligible for a loan through the North Carolina central lender (College Foundation, Inc.) will receive an application/promissory note with their award letters. Students wishing to apply for a loan through other lenders must submit an application from that particular lender to the Financial Aid Office. For additional information, contact the Financial Aid Office.

Perkins Loans provide needy students with long-term, low-interest loans for educational expenses. Under this program students may borrow up to $4,500 for the first two years of study and a total of $9,000 for undergraduate study. Repayment begins nine months after graduation or withdrawal from school, and the borrower may take up to ten years to repay the loan. The interest rate is five percent and does not begin accruing until nine months after graduation or withdrawal from school. All or part of the loan can be cancelled by teaching or military service. Applicants must complete the regular financial aid process. To be eligible for a Perkins Loan, a student must be enrolled in a degree program and must be a citizen or permanent resident of the United States. Full time student applicants are given priority when funds are limited.

The North Carolina Prospective Teachers Scholarship-Loan Program provides assistance to prospective North Carolina teachers. The program provides a $2000-per-year loan which will be cancelled if the student teaches in North Carolina public schools after graduation. The program is administered by the Department of Public Instruction. Inquiries regarding the program should be directed to N.C. Prospective Teachers Scholarship Program, State Department of Public Instruction, Raleigh, N.C. 27611. To be eligible for this program a student must be enrolled for at least 12 hours and be a North Carolina resident.

The North Carolina Student Loan Program for Health, Science and Mathematics provides financial assistance to North Carolina residents who demonstrate need as determined by the Board for Need-Based Medical Student Loans. Loans are available for study in the medical fields, mathematics and science programs that lead to a degree. Additional

information can be obtained by writing or calling (919) 733-2164.

The Student Loan Program
P.O. Box 20549
3824 Barrett Dr., Suite 304
Raleigh, North Carolina 27619-0549

The Nursing Education Scholarship/Loan Program provides assistance to prospective North Carolina nurses. The recipient must be able to demonstrate need through the regular financial aid process. The program provides loans which will be cancelled if the recipient practices full time in North Carolina after graduation. Applicants should contact the Financial Office for specific information.

William L. Anderson Barlow and Mellie Hill Barlow Fund provides interest free loans to eligible candidates when repaid within ten years after graduation or last enrollment in a degree program. Eligible candidates include priority consideration for full-time students who are orphans or raised in orphan-like conditions and who are in need of and are worthy of financial assistance in securing a college education. Applicants from single parent homes may also be considered as may other categories of students depending on the availability of funds. A separate application is required and may be obtained from the Financial Aid Office.

ACADEMIC CONSIDERATIONS

Time Limitation Policy for Determining Eligibility for Financial Aid

A student is allowed up to two additional years beyond the traditional four-year track to complete the undergraduate degree. Any semester in which he or she registers and does not withdraw within the formal drop-add period will be counted, regardless of student's financial status.

Additionally, a student is determined to be no longer eligible for Federal Pell Grant Program once the requirements for graduation have been met. This is true regardless of whether or not the student applies for graduation.

Satisfactory Progress

To be eligible to receive or to remain eligible to receive financial aid funds, undergraduates must maintain satisfactory progress: in their course of study. A determination of satisfactory progress incorporates two standards applied at the end of the regular academic year.

Standard one requires that full-time students must complete 10 hours (approximately one-twelfth of total hours required for graduation). In the case of a student who changes his or her enrollment status from fall to spring semester, the hours which must be completed will be averaged. Standard two involves a qualitative measurement, as shown in the following chart establishing grade standards for hours attempted.

DEGREE STUDENTS		UNCLASSIFIED STUDENTS	
Hours Attempted	**GPA**	**Hours Attempted**	**GPA**
6 - 26	1.2	1 - 6	1.2
27 - 58	1.5	7 - 12	1.5
59 - 88	1.8	13 - 18	1.8
89 or more	2.0	19 - 27	2.0

NOTE: Students enrolled under the three-year rule will be required to meet a minimum 2.0 GPA each term and meet the quantitative measurement of standard one.

The standards of progress outlined for financial aid recipients are not applicable for purposes of continued enrollment, since such determinations will be made by the university in accordance with institutional policy.

A preliminary review will be made at mid-year (following fall semester) to identify those students not meeting the required academic standards. Full-time students not successfully completing at least 10 hours, and less-than-full-time students not completing at least 5 hours will be determined deficient. Students not meeting the academic requirements outlines on the retention chart will be issued a warning. Financial aid recipients who fail to meet either standard at the end of the spring semester will lose their continuing eligibility as aid candidates for subsequent periods of enrollment.

Eligibility lost due to shortage of hours can be regained by successfully completing at least 10 hours plus the number short (for full-time students) or as least 5 hours plus the number short (for less-than-full-time students) during the regular term. Eligibility lost due to failure to meet academic requirements can be regained by bringing the G.P.A. up to the standards outlined on the retention chart.

Students terminated from aid because of failure to meet satisfactory progress standards may appeal when mitigating circumstances exist.

Transfer Students

Each newly-enrolling student, whether freshman or transfer, is initially assumed to be making satisfactory progress. Additionally, the number of hours accepted as transfer hours will be used to place the student within the time frame allowed to complete the undergraduate degree.

VETERANS SERVICES

Veterans Services are administered under the umbrella of Student Financial Aid at UNCW. Veterans services are intended to meet the needs of students receiving benefits under Chapter 35 (Dependents), Chapter 30 (individuals who have served on active duty), and Chapter 106's (reservists from all branches of the service). Effective December 31, 1989, veterans (Chapter 34) who served in the armed forces between 1955-1977 will no longer be eligible to draw benefits under a monthly educational assistance allowance. These benefits have expired and have been replaced by the Montgomery G.I. Bill, also known as Chapter 30 and Chapter 106 (Reservists). Veterans who feel they still have an entitlement should check with their local VA Office, the Regional Office in Winston-Salem (1-800-642-0841) or the VA Certifying Official at their local educational institution.

There are two exceptions to the above:

1. The veteran who has a 10 percent disability due to a service connected disability may be eligible for benefits under Chapter 31. Check with the Regional Veterans Administration, Vocational Rehabilitation (1-800-642-0841). The district supervisor for this area is Cecelia Wall.

2. Veterans who served on active duty with unbroken service between July 1, 1985 and June 30, 1988 may be eligible for a combination of Chapter 34/30 if they entered the spring semester with one day of remaining eligibility. For those veterans who had Chapter 34 entitlement, it will not be necessary for them to have made a contribution. Entitlement will be computed at $300 per month plus one-half of their eligibility under the Chapter 34 benefits. Services provided include peer and professional counseling, remedial and tutorial services, and certification for qualifying veterans and their dependents. The primary concern of Veterans Services is to assist students, monitor their course work, and insure the individuals

utilizing veterans benefits keep in line with their prescribed curriculum and successfully complete their desired educational objective. All veterans and dependents receiving V.A. Educational Benefits are required to come to the Financial Aid Office each semester and complete a class schedule. Any change in the veteran's course of study should be cleared with the veteran's counselor in the Financial Aid Office to insure continuation of benefits. Transfer students are reminded that the office must have copies of all transcripts before certification can be made to the Veterans Administration for payment.

In determining eligibility for V.A. education funds, the chart on page 68 will apply to all veterans and dependents using G.I. benefits for their training at this university. Any full-time student who fails to pass at least three hours during any semester is subject to academic dismissal for one semester, regardless of his or her quality point standing.

Academic Regulations

ACADEMIC REGULATIONS

ORIENTATION

All new students are required to attend an orientation program prior to the beginning of fall and spring semesters. Its purpose is to acquaint students with opportunities and services at the university and to provide information needed to register for classes. Students are notified by mail of the time to report for the activities involved.

All freshmen, including transfer freshmen (less than 24 semester hours) are assigned to the General College for advising purposes. All other students are assigned for advising to an academic department or professional school. Unclassified students may receive advising assistance in the General College Advising Center located on the second floor of Randall Library. Special unclassified students are advised in the department or school in which they are taking courses.

REGISTRATION

Registration is limited to the time period specified in the university calendar of events and other days as announced by the Registrar's Office. Classes may not be added after the last day of registration. Degree students may take up to 18 hours without restriction. Students who have a cumulative quality point average of 3.5 may be allowed, with special permission of the appropriate dean, to carry a maximum of 21 semester hours.

PREREGISTRATION

Preregistration for students currently enrolled is held each semester. Students who complete preregistration and pay fees by the designated date are registered, except in the event that they are declared academically ineligible, at the end of the preceding semester.

TRANSFER OF CREDIT

Students transferring from a two-year institution may receive up to 62 semester hours of academic credit from all institutions attended. Correspondence courses (15 s.h. maximum), advanced placement, CLEP credit and military credit will be included in this total.

Students transferring from a four-year institution may receive up to a maximum of 94 semester hours from all institutions attended. Correspondence courses (15 s.h. maximum), advanced placement, CLEP credit and military service credit will also be included in this total.

Credit earned in another institution with a grade of "C" or better is accepted by the university if the work transferred is comparable to offerings of The University of North Carolina at Wilmington. Hours attempted and quality points earned at other institutions are not used in computing grade point averages except in the case of students applying to enter the teacher education program, the nursing program and of seniors graduating with honors and/or distinction.

ADVANCED PLACEMENT

The University of North Carolina at Wilmington participates in the advanced placement programs of the College Entrance Examination board. A brochure listing the examinations, required minimum scores, course equivalents, and credits awarded is available through the Registrar's Office or the Office of Admissions. A freshman who scores 3 or above on the Advanced Placement test will receive appropriate college credit and advanced placement.

Students taking Advanced Placement tests should have the score reports sent to the Registrar's Office for evaluation concerning placement and credit. Individual departments have determined the specific courses for which credit will be given.

Students who are talented and well prepared may also receive credit for a variety of courses by achieving a passing score on one of the College-Level Examination Program (CLEP) tests. Tests are offered and can be registered for biannually at the Burney Student Development Center.

Students who have been exempted with credit from courses at an accredited college or university may be exempted with credit from appropriate courses at The University of North Carolina at Wilmington, as outlined in the test brochure. When the exemption is based on a test result, the student should have a copy of the score report sent to the Office of Admissions. In those cases in which a student has demonstrated his knowledge of a particular field by more advanced course work, exemptions may be granted on an individual basis by the appropriate department chairperson.

ACADEMIC HONOR CODE

The University of North Carolina at Wilmington is committed to the proposition that the pursuit of truth requires the presence of honesty among all involved. It is therefore this institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the university community are encouraged to report occurrences of dishonesty, honesty is principally the responsibility of each individual.

Academic dishonesty takes many forms, from blatant acts of cheating, stealing, or similar misdeeds to the more subtle forms of plagiarism, all of which are totally out of place in an institution of higher learning. Reporting and adjudication procedures have been developed to enforce the policy of academic integrity, to ensure justice, and to protect individual rights. Complete details may be found in the current *Student Handbook, Code of Student Life* and in the *Faculty Handbook.*

GRADES AND REPORTS

The University of North Carolina at Wilmington uses the quality point system and semester hour credit for calculating student achievement. Grade symbols used are: A-excellent, B-good, C-average, D-passing, F-failure, I-incomplete, W-withdrew.

Quality points are assigned as follows: 4 for a grade of "A", 3 for a grade of "B", 2 for a grade of "C", 1 for a grade of "D". No quality points are given for a grade on "I", "F", or "W". The quality point ratio is determined by dividing the accumulated number of quality points earned by the accumulated number of semester hours attempted. Hours attempted for which a grade of "I" or "F" has been assigned must be included in this calculation.

At the discretion of the instructor, a student may be given a grade of incomplete when the work in the course has not been completed for reasons beyond the control of the student. All incomplete grades must be removed according to a deadline established by the instructor, not to exceed one calendar year from the end of the semester in which the incomplete was given; otherwise the "I" becomes "F". A student must not register for the class when attempting to remove a grade of incomplete.

Grade reports are mailed to the student at the end of each semester.

CHANGE OF MAJOR

With one exception, all requests for a change of major must be completed in the General College Advising Center. The only exception is for those students changing from one department in a professional school to another department in the same school. These requests must be completed in the office of the dean of that school.

DEAN'S LIST

To be included in the Dean's List at the close of each semester, students must meet one of the following criteria:

(a) Students carrying 12-14 hours must earn a quality point average of 3.5 or better with no grade less than B.

(b) Students carrying 15 hours or more must earn a quality point average of 3.2 or better with no grade less than B.

Students carrying 11 hours or fewer are not eligible for the Dean's List.

WITHDRAWAL POLICY FOR UNDERGRADUATE STUDENTS

A student is allowed to withdraw from the university or from individual courses through the first week of the semester without having a grade entered on the academic record. Inclusive of the second through the sixth week of the semester, any student who withdraws from the university or from individual courses will receive a grade of W. A grade of W will not affect the student's grade point average. Beginning with the seventh week of the semester, a grade of F will be assigned for each course withdrawal.

To withdraw from an individual class or classes, the student must report to the Registrar's Office before or on the last day for withdrawal as indicated in the university calendar of events. To withdraw from all classes, the student must process an official Withdrawal Form through the Office of the Dean of Students. If the student is unable to appear in person to withdraw, written notice must be sent to the Office of the Dean of Students.

Should extenuating circumstances warrant, the grade of F assigned for course withdrawal may be changed to a W. This determination will be made by the dean of the school or college in which the student is enrolled. It is the student's responsibility to initiate the appeal. The decision of the dean is final and must be rendered prior to the end of the semester in which the withdrawal occurred.

AUDITING

The auditing of courses without credit is approved by special permission of the registrar and of the instructor involved. Individuals not regularly enrolled as students in the university who wish to audit courses will be classified as special students and will be required to pay regular tuition and fees. University students in regular status will be permitted to audit courses and must pay the same tuition and fees required for credit courses.

REPEATING OF COURSES

Students who receive a grade of "C" or better in a course may not repeat the course but may audit without credit.

Students who receive a grade of "D" in a course taken at UNCW may, with the permission of their academic advisor and the appropriate academic dean, repeat the course once at UNCW and receive the grade given for the second attempt. Although no additional credit in hours earned toward graduation will be granted, the original grade will not be used in determining the grade point average of the student. The original grade, however, will remain on the student's permanent academic record. This policy is effective beginning with the fall semester, 1985.

Students who receive a grade of "F" in a course taken at UNCW may, with the permission of their academic advisor and the appropriate academic dean, repeat the course once at UNCW and receive the hours credit and the grade. The original grade will not be used in determining the grade point average of the student although it will remain a part of the

student's permanent academic record. This policy is effective beginning with the fall semester, 1985.

Students who receive a grade of "D" or "F" in a course taken at UNCW may, with the permission of their academic advisor and the appropriate academic dean, repeat the course more than once at UNCW, However, the credit hours of the course and the grade received will be included in determining the grade point average of the student each time the course is repeated.

Course repeat approval forms are available in the Registrar's Office. Students must complete this form and have it approved by the academic advisor and the appropriate academic dean before repeating a course.

OFF-CAMPUS COURSES

Students who enroll in off-campus courses (extension, correspondence, campus summer school, or study abroad) and wish to apply credit in these courses toward a degree at The University of North Carolina at Wilmington must complete the Permission for Transient Study Form, or, Study Abroad Approval Form for study abroad students, before registering for the course. This permission must be on file in the Registrar's Office prior to leaving campus.

GRADE APPEAL PROCEDURE

Any student considering a grade appeal should understand that each faculty member has the academic freedom and responsibility to determine grades according to any method chosen by the faculty member which is professionally acceptable, communicated to everyone in the class, and applied to all students equally. However, prejudiced or capricious academic evaluation by a faculty member is a violation of a student's rights and is the valid ground for a grade appeal.

Any student who contests a course grade shall first attempt to resolve the matter with the instructor involved. Failing to reach a satisfactory resolution, the student may appeal the grade in accordance with the procedures outlined below. These procedures are not to be used in cases involving student academic dishonesty. An appeal must be made not later than the last day of the next succeeding regular semester.

1. The student shall present the appeal in writing to the chairperson of the department within which the contested grade was awarded. The written statement shall limit itself to citations of evidence pertaining to the valid ground for the appeal. By conferring with the student and the instructor, the chairperson will seek resolution by mutual agreement.

2. Failing such resolution the department chairperson shall transmit the written appeal to the appropriate dean who will convene the Grade Appeals Committee.

3. The Grade Appeals Committee shall consist of the convening dean and five faculty members appointed by the dean. If the committee affirms the instructor's decision, the dean will notify in writing the faculty member, the student, and the department chairperson as appropriate. If the committee supports the student's appeal, it shall prescribe the method by which the student will be reevaluated. The grade resulting from the prescribed reevaluation is final and may not be further appealed.

CLASS ATTENDANCE

Students are expected to be present at all regular class meetings and examinations for the courses in which they are registered. All faculty members are responsible for setting policy concerning the role of attendance in determining grades for their classes. It is the responsibility of the students to learn and comply with the policies set for each class in which they are registered.

FINAL EXAMINATION POLICY

University policy requires the scheduling of final examinations. Under this policy, the final examination schedule provides a three-hour period for each examination and allows a maximum of three examinations per day. The length of the final examination, up to a maximum of three hours, is at the discretion of the instructor.

The final examination schedule is published at the beginning of each semester. Courses offered during the day have final examinations during the day (two per day). Night courses have final examination at night (one per night).

A student who is scheduled to take three final examinations in one calendar day may have one rescheduled by notifying the three instructors and the appropriate deans of this desire at least two weeks before the beginning of the final examination period. It will be the responsibility of the three instructors, working with the student, to reschedule one of the examinations and so inform the student and the appropriate deans at least one week before the beginning of the final examination period.

Rescheduling of a final examination for an entire class may be done only with the approval of the appropriate dean.

CLASSIFICATION OF STUDENTS

Students are classified as freshmen, sophomores, juniors, and seniors. Semester hours passed are used to determine these classifications. In order to graduate in eight semesters, a student must average 31 hours each year.

The required number of hours passed for each classification is as follows:

Less than 27 semester hours credit - Freshman
From 27-58 semester hours credit - Sophomore
From 59-88 semester hours credit - Junior
More than 88 semester hours credit - Senior

Retention, Dismissal and Re-admission

The University of North Carolina at Wilmington both encourages and requires scholarship. In order to remain at the university, all students must meet the quality point requirements as outlined below.

RETENTION CHART

Total Quality Hours Attempted	Required Quality Point Average for Eligibility To Continue in the University
6-26	1.2
27-58	1.5
59-88	1.8
89 or more	2.0

Transfer students are placed in the above retention chart based on total hours transferred from all institutions attended. Transfer students' quality point averages are computed only on work attempted through The University of North Carolina at Wilmington.

Students who do not meet the minimum quality point requirement for retention at the conclusion of the spring semester will be declared ineligible. These students will be allowed

to make up deficiencies during this university's summer sessions which immediately follow the spring semester in which they were declared ineligible. In addition, they will lose their preregistration for the fall semester. If such deficiencies are not removed in this manner, students will be dismissed from the university for one semester. Such students may re enroll for any subsequent semester if space is available. Applications for re-enrollment are available in the Admissions Office and should be filed as early as possible to ensure acceptance. If accepted, students attend on a probationary basis and must prove themselves by meeting the required quality point average as outlined in the retention chart. However, re-enrolled students who make a 2.0 average or better during the first semester after returning, but who fail to reduce quality point deficiencies to the required level, will be granted one additional semester in which to meet this requirement.

A second academic dismissal is final unless eligibility for continued residence or for readmission is restored by completion of sufficient work during the summer sessions at The University of North Carolina at Wilmington.

Students may, through appropriate administrative review of mitigating circumstances, be authorized to continue with their studies on a conditional basis. Written permission must be obtained from the appropriate dean prior to the beginning of the semester in which such students wish to enroll.

Full-time students who fail to pass at least three hours during any semester are subject to academic dismissal for one semester, regardless of quality point standing. Freshmen, other than transfer students, must earn at least three semester hours of credit the first semester. Students who fail to meet this requirement will be subject to academic dismissal. These students must also meet the minimum quality point ratio on hours attempted listed in the retention table if they wish to continue in the university.

HONORS PROGRAM

A student who has a quality point average of 3.2 or better (including all transfer courses attempted) over the first two and one-half years of college work (74 semester hours), who has completed at least 30 semester hours work with a 3.2 or better quality point average at The University of North Carolina at Wilmington, and who is recommended by the chairperson of the area of concentration is eligible for admission to the Honors Program. This program involves independent study in the area of concentration, a paper reporting the results of the study, and an oral examination. Honors work is not intended to replace any specifically required courses.

A student who enters the Honors Program will be required to complete six semester hours of honors work in the field of concentration during the last three semesters, with a maximum of three semester hours credit in any one semester. The Honors Program may be entered either at the beginning of the second semester of the junior year (on completion of 74 semester hours) or at the beginning of the first semester of the senior year.

In order to graduate with honors, a student must successfully complete the program and have a 3.2 quality point average over all college work at the time of graduation. A student who does not retain an overall average of 3.2, however, may still receive credit for the honors project.

REQUIREMENTS FOR GRADUATION

Students may qualify for the bachelor's degree by completing successfully (1) the basic studies requirements, (2) an approved course of study in an area of concentration, (3) a total of 124 semester hours of credit, and (4) a minimum quality point average of 2.0. The final

30 semester hours of course credit, including the final 15 semester hours in the concentration, must be completed at The University of North Carolina at Wilmington.

Graduation will be certified at the end of the term in which all academic requirements are complete. Upon completion of all requirements, the student will receive either the Bachelor of Arts, the Bachelor of Science or the Bachelor of Social Work degree.

Application for graduation must be filed in the Office of the Registrar on or before the dates specified in the University Calendar. The graduation fee is listed on page 50.

In advising and registering students, the deans, the registrar and faculty advisors try to make certain that every student who intends to graduate from the university registers for those courses which are required for a degree. The student, however, must assume the final responsibility for meeting the graduation requirements set forth in the university catalogue.

A student who enrolls at The University of North Carolina at Wilmington during any academic year and who earns credit for work done during the year may always graduate under the provisions of the entering catalogue or under any subsequent catalogue, provided all graduation requirements are completed within six years of the expiration date of the catalogue chosen.

REQUIREMENTS FOR A DOUBLE CONCENTRATION

A student may elect to concentrate in two separate disciplines with the permission of the chairperson of each of the departments and on the condition that the student meets all requirements for each concentration. The student who completes requirements for more than one concentration will receive only one degree, but at the time of the initial graduation the record will indicate both concentrations when the completed requirements lead to the same baccalaureate degree.

A student who returns to the university after the initial graduation to complete the requirements for a second concentration may have the additional area of concentration added to the official record upon written notification from the department chairperson that all departmental requirements have been satisfactorily met.

REQUIREMENTS FOR A SECOND BACCALAUREATE DEGREE

A student with a bachelor's degree from UNCW may receive a second baccalaureate degree if it is a different degree and a different concentration by fulfilling the following requirements:

(1) The student must meet all the requirements for the second degree and concentration.

(2) The student must complete a minimum of 30 hours in residence beyond the requirements for the first degree for a minimum of 154 semester hours.

DEGREES WITH DISTINCTION

Three degrees with distinction are granted to graduating students based on all work attempted in meeting requirements for the degree as follows:

Cum Laude for an overall average or 3.50

Magna Cum Laude for an overall average of 3.70

Summa Cum Laude for an overall average of 3.90

Degrees with distinction are granted to transfer students under the following conditions:

(1) The student must have the required overall average on all work attempted (including all transfer courses attempted).

(2) The student must have the required average on work attempted at The University of North Carolina at Wilmington.

Students who complete the Honors Program satisfactorily will be graduated "With Honors in" the discipline in which the special work is undertaken.

TRANSCRIPTS

Transcripts are issued to students at the cost of $2.00 each. All requests for transcripts must be in writing.

INDEBTEDNESS

All indebtedness to the university must be satisfactorily settled before a diploma or transcript of record will be issued.

CHANGE OF NAME AND ADDRESS

It is the obligation of every student to notify the Office of the Registrar in writing of any change in name or of permanent mailing address.

Degree Requirements and Course Descriptions

ACADEMIC PROGRAMS

The University of North Carolina at Wilmington offers four-year programs leading to th Bachelor of Arts, the Bachelor of Science and the Bachelor of Social Work degrees. Graduat programs lead to the Master of Arts, Master of Arts in Teaching, Master of Business Admir istration, Master of Education, and Master of Science degrees. Professional undergraduat programs include those offered in the Cameron School of Business Administration, th School of Education, the School of Nursing and the Medical Technology program in th College of Arts and Sciences. Preprofessional programs are offered in agriculture and forestr allied health, health-related careers, dentistry, engineering, law, medicine, pharmacy, physic therapy, podiatry and veterinary medicine. The university has special programs in marin sciences and environmental studies.

DEGREES OFFERED

Areas of Concentration for the Bachelor of Arts Degree

Anthropology
Art
Biology
Chemistry
Communication Studies
Criminal Justice
Drama
Economics
Elementary Education
English
Environmental Studies
French
Geography
Geology
History
Mathematics
Middle Grades Education
Music
Music Education
Parks and Recreation Management
Philosophy & Religion
Physical Education
Physics
Political Science
Psychology
Social Science
Sociology
Spanish
Special Education

Areas of Concentration for the Bachelor of Science Degree

Accountancy
Biology
Business Management
Business Systems
Chemistry
Computer Science
Economics
Finance
Geology
Marine Biology
Marketing
Mathematics
Medical Technology
Nursing
Physics

Area of Concentration for the Bachelor of Social Work

Social Work

Areas of Concentration for the Master of Arts Degree

nglish
istory
Mathematics

Area of Concentration for the Master of Business Administration Degree

Business Management and Administration

Areas of Concentration for the Master of Arts in Teaching Degree

ology
hemistry
nglish
History
Mathematics

Areas of Concentration for the Master of Education Degree

ementary Education
ducational Administration
and Supervision
Reading Education
Special Education

Areas of Concentration for the Master of Science Degree

ology
hemistry
eology
Marine Biology
Mathematics

HE GENERAL COLLEGE

The General College consists of the first year of study during which students are expected work toward fulfilling the university's basic studies requirements as outlined in this university talogue. All freshmen are enrolled in the General College. Upon entering the university, any students do not know which major they will pursue. Courses prerequisite to a major, mbined with elective courses, provide the opportunity to explore several different areas of cademic interest. Students who have already chosen their major or professional program ll still want to make satisfactory progress toward completing basic studies requirements mbined with other required courses in their chosen field before transferring from the Gen- al College toward the end of the freshman year. Students undecided about a major at the d of the freshman year may remain in the General College during the sophomore year. A ajor must be declared no later than the end of the sophomore year. Upon declaration of major, all students are then assigned an advisor in the designated department or profes- onal school. Finally, students with admissions deficiencies are expected to remedy these eficiencies while still enrolled in the General College.

e General College Advising Program

Each student in the General College receives the personal assistance of a faculty advisor selecting courses, maintaining required scholastic standards, and planning a complete eneral College educational program. Every effort is made to place students in classes opropriate to their level of preparation and achievement. The General College Advising

Program has 62 faculty advisors and is responsible for advising all students in the General College. Advising assistance is available in the General College Advising Center from 8 a.m. - 5 p.m., Monday through Friday. Advisors may be seen either on an appointment or a drop-in basis. Advisees are expected to see their advisors before preregistration/registration, before dropping or adding courses and before withdrawing from the university.

Admission to the College of Arts & Sciences

Students wishing to declare a major within the College of Arts & Sciences will request to have their records transferred to the appropriate department no earlier than the end of the second semester of the freshman year and no later than the end of the sophomore year.

Admission to the Professional Schools

Students wishing to declare a major within a professional school will request to have their records transferred to the appropriate school no earlier than the end of the second semester of their freshman year and no later than the end of the sophomore year. These students will then be assigned to that school for pre-professional advising.

Students seeking admission to the Cameron School of Business Administration or the School of Education normally submit their applications to the appropriate school immediately upon completion of the third semester of study, provided the minimal requirements as stated in the university catalogue have been met at the time of application.

Students seeking admission to the School of Nursing must submit applications to the Office of the Dean, School of Nursing. Application forms and deadline dates are available from the School of Nursing.

I. Requirements for Admission to the Cameron School of Business Administration

1. Each applicant for admission must have completed a minimum of 44 semester hours with a cumulative grade point average (GPA) of 2.0 or better (4.0 scale).

2. Bachelor of Science:
   The following courses are required for admission to the Cameron School of Business Administration:

   Must be completed:

ENG 101-102	English Composition I and II
MAT 111 or 115	Precalculus I or Elementary Math Analysis
ACG 201	Financial Accounting
ECN 221	Principles of Economics-Micro

   Must be completed or enrolled:

ACG 203	Managerial Accounting
ECN 222	Principles of Economics-Macro
PDS 217	Statistical Analysis for Business
MAT 151 or 161	Basic Calculus w/Applications I or Calculus with Analytic Geometry

   Bachelor of Arts:
   Same as above except that students studying for the bachelor of arts degree are not required to complete ACG 201 or ACG 203, and may substitute STT 205 for PDS 217.

3. Students may not enroll in restricted courses nor enroll in more that 15 semester hours with the school beyond preadmission courses without being formally admitted to the school. A list of restricted courses is available in the Undergraduate Advising Center.

I. Requirements for Admission to the School of Education and the Teacher Education Program

1. Completion of the university requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.

2. Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.

3. Completion of four semesters or two academic years of full-time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale.

4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

II. Requirements for Admission to the School of Nursing-Bachelor of Science Degree Program

1. Minimum overall cumulative GPA of 2.5 or better (on a 4.0 scale) is required for all course work attempted at the college or university level.

2. Minimum grade of "C" in each of the following courses or their equivalent:

BIO 240 - 241	Human Anatomy & Physiology (2 semesters)
CHM 115	Fundamentals of General and Organic Chemistry
CHM 215	Fundamentals of Organic and Biological Chemistry
BIO 246	Microbiology of Human Diseases
MAT 111	Precalculus I

3. Completion of all courses prerequisite to the nursing major. (Any foreign language deficiency must have been removed prior to admission to the program).

4. Evidence of satisfactory high school completion or equivalent.

5. Satisfactory physical and emotional health.

Admission Requirements-RN Access Program

In addition to the above requirements, applicants to the RN Access program need:

1. One year nursing practice.

2. A current license to practice as a registered nurse in North Carolina.

BASIC STUDIES REQUIREMENTS

Basic Studies at The University of North Carolina at Wilmington is defined as the acquisition of essential skills and an introduction to the broad spectrum of studies which are basic to our intellectual and cultural heritage. The program is designed to develop skills in comprehension, composition, reasoning and analysis; to introduce students to the structure, methodology and knowledge of academic disciplines; and to address important human concerns from disciplinary or interdisciplinary perspectives.

To qualify for the bachelor's degree from The University of North Carolina at Wilmington, all students must acquire a total of forty-five (45) semester hours less exemptions.

A. English Composition (6 hours)
Required: ENG 101 and 102

B. Physical Education (2 hours)
Required: PED 101

C. Humanities (12-18 hours)
Required: A minimum of 12 and a maximum of 18 hours elected from the following four categories with a minimum of three hours in each category.

1. Literature (3-9 hours)
   ENG 110, 207, 208, 209 (CLA 209), 210 (CLA 210), 211, 212, 219, 223, 224, 225, 226, 230, 233, 250
   CLA 209 (ENG 209), 210 (ENG 210)
   FRH 209, 321, 322
   GER 209, 321, 322
   SPN 209, 210, 321, 322
2. History (3-9 hours)
   HST 101, 102, 103, 201, 202, 237, 261, 273, 275
3. Philosophy (3-9 hours)
   P&R 101, 103, 115, 125, 201, 202, 205, 215* or 216* or 217*, 230, 232, 235, 236, 238, 240, 242
   * Basic studies credit from P&R 215, 216 and 217 may not exceed three semester hours.
4. Language (3-9 hours)
   FRH 101, 102, 201, 202, 305
   GER 101, 102, 201, 202, 305
   LAT 101, 102, 201, 202
   PRT 101, 102, 201, 202
   SPN 101, 102, 201, 202, 305
   COM 105
   P&R 110

D. Fine Arts (3-9 hours)
Required: A minimum of three and a maximum of nine hours elected from the following, with no more than six hours from any one discipline.
ART 101, 102, 201, 202, 204, 221, 241, 242
COM 116
FNA 110, 112
DRA 221, 225
MUS 185*, 186*, 187*, 105, 115, 116, 117, 118
* Basic studies credit from MUS 185, 186, and 187 may not exceed a total of three semester hours.

E. Natural Sciences and Mathematical Sciences (7-12 hours)
Required: A minimum of seven and a maximum of 12 hours from the two areas of natural sciences and mathematics as described below.

1. Natural Sciences (7-12 hours)
   Required: A minimum of seven and a maximum of 12 hours, including at least one laboratory science course and a minimum of three hours each in the life and physical sciences. Courses that satisfy the laboratory science requirement (when taken with the appropriate laboratory section) are starred below.
   a. Life Science courses
      ANT 210
      BIO 105*, 110*, 111*, 205*, 206*, 216*, (PED 216*), 217 (PED 217), 235, 236, 237, 238, 240*, 241*
      GLY 135
      PED 216* (BIO 216*), 217 (BIO 217)
   b. Physical Science courses
      CHM 101*, 102*, 103*, 115*, 215*
      GGY 130*, 230
      GLY 101*, 102*, 120, 150
      PHY 101*, 102*, 105*, 201*, 202*, 260
2. Mathematical Sciences (3-8 hours)
   Required: One of the following courses:
   MAT 101, 111, 112, 115, 141, 151, 161
   Additional credit may be earned by electing from the following list:
   CSC 111, 121
   MAT 102, 112, 142, 151, 152, 161, 162, 275
   P&R 218
   STT 205, 210, 215, 262

F. Social and Behavioral Sciences (3-9 hours)
Required: A minimum of three and a maximum of nine hours elected from the following, with no more than six hours from any one discipline.
ANT 105, 205 (SOC 205), 206, 207
CRJ 201
ECN 125, 221, 222
GGY 110, 140
PLS 101, 102, 111, 202, 206, 207
PSY 105, 145, 220, 223
SWK 235
SOC 105, 110, 205 (ANT 205), 215, 220

Restrictions on Courses from Individual Disciplines

1. A maximum of nine credit hours from any academic discipline (as defined by the three-letter course code), excluding ENG 101-102, can count toward the 45 hours of Basic Studies.

2. No more than two specific Basic Studies requirements (as indicated by letter or letter-number code in the above structure), excluding English Composition, can be met by courses in one academic discipline (as defined by the three-letter course code).

Waiver of Requirements

English: Students who have not qualified for advanced placement but who because of special circumstances may have writing competencies equal or superior to those required in ENG 101 or 102 may, at the discretion of the chairperson of the Department of English, take a waiver examination. An acceptable score will waive either or both requirements. This waiver does not grant academic credit.

Mathematics: Students who have not qualified for advanced placement but who may have competencies equal or superior to those required for successful completion of MAT 151 or 161 may, at the discretion of the chairperson of the Department of Mathematical Sciences, take a waiver examination for either of these courses. An acceptable score on this exam waives the requirement that one of the introductory mathematics courses be taken. This waiver does not grant academic credit.

REQUIRED PHYSICAL EDUCATION

Through participation in the required physical education program, students should expect to develop an understanding of the role of life-long physical activity in enhancing the quality of one's life.

The university requires all students to complete with a passing grade PED 101, Foundations of Physical Activity. Transfer students who have not had an equivalent course must also complete this requirement. Handicapped students are encouraged to participate to the fullest extent possible in physical education activities and are encouraged to consult with the chairperson of the Department of Health, Physical Education, and Recreation concerning participation in these activities.

The university requires all students to provide information regarding their current health status on the Report of Medical History form available through the Admissions Office. Completion of this requirement is a prerequisite to:

1) enrollment in any physical education activity course,
2) participation in any physical education activity course,
3) utilization of the physical education facilities for recreational purposes. Based on the information contained in this report, the student will be assigned to one of three categories listed below:
   A. Unrestricted participation
   B. Restricted participation
   C. Temporarily restricted participation because of an injury or illness

COURSE DESCRIPTIONS

All undergraduate courses offered in the College of Arts and Sciences, the Cameron School of Business Administration, the School of Education, and the School of Nursing are listed following the appropriate departmental degree requirements. Not all of the courses listed are offered within a single academic year. A listing of the courses offered during a given semester is printed in a Class Schedule Booklet, which is placed in each student's university mailbox before preregistration each semester.

Please note: A hyphen connecting courses (e.g., 201-202) indicates that the first course in the sequence must be satisfactorily completed prior to registration in the second course of the sequence. When course numbers are separated by a comma (e.g, 201,202), the first course is not necessarily prerequisite to those following.

CREDITS AND CLASS MEETINGS

Unless specifically indicated at the end of the course description, the number of hours a class meets each week is the same as the credit hour value of the course. The semester hours credit for each course is indicated in parentheses immediately following the title of the course. For example, if three hours of credit may be earned the credit is indicated as follows: (3). In variable credit courses, the minimum and maximum hours are shown as follows: (1-3).

COURSE PREFIXES

The prefixes used to designate courses are abbreviations of the names of departments or fields of study within departments.

COLLEGE OF ARTS AND SCIENCES

ANT	Anthropology
ART	Art
BIO	Biological Sciences
CHM	Chemistry
CLA	Classical Languages
COM	Communication Studies
CRJ	Criminal Justice
CSC	Computer Science
DRA	Drama
EGN	Engineering
ENG	English
EVS	Environmental Studies
FLL	Foreign Languages and Literatures
FNA	Fine Arts
FRH	French
GER	German
GGY	Geography
GLY	Geology
HEA	Health
HST	History
LAT	Latin
MAT	Mathematics
MDT	Medical Technology
MLN	Modern Languages
MUS	Music
P&R	Philosophy & Religion
PED	Physical Education
PHY	Physics
PLS	Political Science
PRT	Portuguese
PSY	Psychology
REC	Recreation
SOC	Sociolcgy
SPN	Spanish
STT	Statistics
SWK	Social Work

CAMERON SCHOOL OF BUSINESS ADMINISTRATION

ACG	Accountancy
BLA	Business Law
ECN	Economics
FIN	Finance
MGT	Management
MKT	Marketing
PDS	Production & Decision Sciences

SCHOOL OF EDUCATION

EDN	Curricular Studies
EDN	Educational Design & Management

SCHOOL OF NURSING

NSG	Nursing

TRIAL COURSES

Academic departments may offer special trial courses during the fall and spring semesters on a one-time basis without adding them to their regular departmental offerings. A second trial offering, if additional data are essential, must be within two regular semesters of the first. Numbers designating these special courses are 292 and 492. Descriptive information on trial courses does not appear in the catalogue, but is on file in the Office of the Registrar.

DIRECTED INDIVIDUAL STUDY

This course designated as 491 in each department involves investigation beyond what is offered in existing courses. To enroll in a Directed Individual Study, students must have an overall grade point average of at least 2.0 and the approval of 1) the faculty member who will direct the study, 2) the departmental chairperson, and 3) the appropriate dean. Departmental criteria will include 1) the availability of the instructor (ordinarily instructors will not supervise more than six student credit hours of Directed Individual Study per semester), 2) the appropriateness of and need for the proposed study in the student's program, 3) the availability of library and other research resources, and 4) the feasibility of completion of the proposed study in the allotted time. Students are limited to nine credit hours of Directed Individual Study toward graduation requirements, not more than three of which can be outside the area of concentration.

General College Course

GCA 101. Freshman Seminar (1). An active application of tested academic strategies to current semester's course material. Course content includes test-taking and note-taking skills, comprehensive techniques, library use, guest lectures, study/ reading strategies, and verbal and written communication ability. At least one hour each week.

International Study Courses

Academic departments at the university may offer special international study courses during the regular semesters or summer sessions without adding them to their permanent curricula. Each course must be approved by the appropriate dean. These courses will include regular classroom assignments, lectures and discussions, travel and field work, and visits to historic and cultural sites. Study will take place outside the United States, usually in association with local universities abroad. Numbers designating these courses are 294 and 494.

Students who want a study abroad exchange experience with a university in which UNCW has such an agreement, must sign up for INT 294 or 494 for 12 credit hours. Students must enroll in this course during the regular preregistration or registration period prior to the semester abroad, and pay tuition and fees to UNCW at the full time rate.

COLLEGE OF ARTS AND SCIENCES

Carolyn H. Simmons, *Dean*
Gary L. Faulkner, *Assistant Dean*
John L. Stokes, *Assistant Dean*
C. Sue Lamb, *Assistant Dean*
Charles R. Ward, *Director of Science and Mathematics Education Center*

The College of Arts and Sciences offers a variety of programs in the liberal arts leading to the Bachelor of Arts, Bachelor of Science, Bachelor of Social Work, Master of Arts and Master of Science Degrees. To implement these programs, the college provides instruction, research, and creative opportunities in the fine arts and humanities as well as in the natural, physical, and social sciences. The sixteen academic departments in the college provide courses of study in each of these areas, in addition to the interdisciplinary programs in social science and environmental studies, a professional program in medical technology, and preprofessional programs in agriculture and forestry, allied health, health-related careers, dentistry, engineering, law, medicine, pharmacy, physical therapy, podiatry and veterinary medicine.

Degree requirements for all undergraduate concentrations available in the College of Arts and Sciences are listed below by departments. Requirements for the graduate degrees are listed in the Graduate School Catalogue, while those for professional, preprofessional, and special programs are listed in those sections of this catalogue.

DEPARTMENTAL REQUIREMENTS

ANTHROPOLOGY

(See Sociology and Anthropology)

ART

(See Fine Arts)

BIOLOGICAL SCIENCES

Dr. Sizemore, *Chairperson.* Dr. Ballard, Dr. Biggs, Dr. Bird, Dr. Bolen, Dr. Cahoon, Dr. Clavijo, Dr. Dillaman, Dr.Dodd, Dr. Dunn, Dr. Fugler, Dr. George, Dr. Hackney, Dr Hosier, Dr. Hulbert, Dr. Kapraun, Ms. Kendrick, Dr. Lindquist, Dr. Lundeen, Dr. Merritt, Dr. Mintzes, Dr. Padgett, Dr. Parnell, Dr. Pawlik, Dr. Plyler, Dr. Posey, Dr. Roer, Dr. Roye, Dr. Shafer, Dr. Sieren, Dr. Webster.

Requirements for a Concentration in Biology for the B.A. degree: Basic core requirements are BIO 110-111, 205, and 206 which should be taken within the first four semesters. In addition to those requirements, there are two options described below, one of which a student must elect in order to complete the degree requirements.

Option 1. General.

BIO 495 and minimum of 25 hours chosen from courses numbered above 299. CHM 101-102 with lab. A minimum of 16 hours chosen from the listed courses in at least two of the following areas: CHM 211, 212, 235, CSC 105, 111, 121, GLY 101, 102, 150, MAT 151, 152,

161, 162, 261, PHY 101 or 105, 102, 201, 202, 260, PSY 456, 457, STT 215. With the advanced approval of the faculty advisor and the department chairperson, other courses may be substituted for the collateral electives listed above. A "C" or better average on BIO courses above 299. This option is a flexible program which can be designed by a student and an advisor to meet personal educational goals and interests which may or may not include graduate study. The program may be used to meet a set of specific requirements, for example, certification for teaching at the secondary school level.

Option 2. Premedical Sciences.

BIO 315, 335 with lab, 345 or 347, or 465, 495 and minimum of 8 hours chosen from BIO 316, 371, 410, 425, 435, 440, 441, 477. Collateral requirements are CHM 101 - 102 with lab, 211 - 212 with lab, 235, PHY 101 - 102 with lab, MAT 151, 152. A "C" or better average on BIO courses above 299. This option is designed for students who wish pre-professional training in medicine, dentistry, optometry, and other health care fields. The sequence of courses conforms to entrance requirements prescribed in publications of the Association of American Medical Colleges, the American Association of Dental Schools, and the council on Optometric Education of the American Optometric Association.

Requirements for a Concentration in Biology for the B.S. degree: Basic core requirements are BIO 110-111, 205, and 206 which must be taken within the first four semesters. BIO 335 with lab, 345 or 347 with lab or 355, 366, 495, and a minimum of 8 additional hours in courses numbered above 299, at least 3 hours of which must be cellular/molecular biology. (The following are considered to be courses in cellular-molecular biology: BIO 347, 410, 425, 430, 435, 436, 440, 465.) Collateral requirements are CHM 101 - 102 with lab, 211 - 212 with lab, PHY 101 - 102 or 201 - 202, MAT 151 and STT 215. Students planning to attend graduate school are urged to take CHM 235, MAT 152, CSC 111, 121, 125, 126, and FRH 201 - 202 or GER 201 - 202. A "C" or better average on all BIO courses above 299. This degree program is designed for those students who plan to attend graduate school or seek employment in various fields of biological specialization.

Requirements for a Concentration in Marine Biology for the B.S. degree: Basic core requirements are BIO 110-111, 205, and 206 which must be taken within the first four semesters. BIO 335 with lab, 345 or 347 with lab or 355, 362, 366, and 495. A minimum of 10 hours selected from the following: 358, 365 or 481, 446 or 472, 457, 458, 462, and 468. Collateral requirements are CHM 101 - 102 with lab, GLY 150, PHY 101 - 102 or 201-202, MAT 111 - 112 or 115 -151 or a higher sequence, a minimum of 4 semester hours chosen from CHM 211, 212, 235, 475, CSC 111, 121, 125, GGY 333, GLY 101, 231, STT 215. A "C" or better average on BIO courses above 299.

This degree program is designed for those students who plan to attend graduate school or seek employment in fields of biological specialization which are marine related.

Requirements for Teacher Certification in Biology: In addition to completing the requirements for a degree in biology or marine biology and the other requirements of the Teacher Education Program, the following courses are required for certification: BIO 315, 235 or 335 with or without lab, 345 or 347 with or without lab or 355, 366, 425, GLY 101 or 150, and PHY 101 or 105.

Requirements for a Concentration in Medical Technology for the B.S. degree:
(See Professional Programs)

Biology Course Descriptions

BIO 105. Concepts of Modern Biology (4) An introduction to the diversity of life and the principles governing living systems, focusing on the role of humans in the natural world. This course employs multi-media instructional materials and is designed for the non-biology major. Three lecture hours and three laboratory/discussion hours each week.

BIO 108. Introduction to Medical Technology (1) A survey of medical laboratory technology as a career option. Explores the many disciplines encompassed by the profession including microbiology, chemistry, blood banking, and hematology as they apply to the medical diagnostic laboratory, as well as brief considerations of cytotechnology and histo-technology. The course includes a discussion of the nature and scope of necessary skills, opportunities for advancement, certification requirements, and visits to a hospital laboratory. One hour and 15 minutes each week.

BIO 110-111, 205, 206. Core courses for biology majors.

BIO 110-111. Principles of Biology (4-4) Introduction to the molecular and cellular basis of life, mechanisms responsible for diversity and stability in natural populations, and interactions of living organisms with each other and the environment. Laboratories reinforce concepts presented in lecture and introduce basic investigative skills and methods of biological inquiry. Designed primarily for biology majors. Three lecture and three laboratory hours each week.

BIO 205. Plant Biology (4) Prerequisite: BIO 110-111 or consent of instructor. Classification, morphology, physiology, and ecology of seed plants with introductory survey of algae, fungi, bryophytes and lower vascular plants. Three lecture and three laboratory hours each week.

BIO 206. Animal Biology (4) Prerequisite: BIO 110-111 or consent of instructor. Evolution, classification and diversity of animals, and structure and functions of major body systems, especially of humans. Three lecture and three laboratory hours each week.

BIO 216. (PED 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three laboratory hours each week.

BIO 217. (PED 217) Human Anatomy and Physiology II (3) The study of human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement.

BIO 235, 236, 237, 238. Elective courses primarily for non-major students, emphasizing "man in the natural world;" two or more to be offered each semester.

BIO 235. Genetics in Human Affairs (3) A discussion of basic principles of genetics for non-majors or majors with the ultimate goal of developing an understanding of the relationship of genetics to the society of today and its possible influence on the future of man. A survey of current knowledge of the inheritance of human traits is included.

BIO 236. Biology of the Sea (3) An introduction to marine environments, the diversity of marine life and the role of man in the utilization of marine resources. Students will become acquainted with local marine habitats, including: salt marshes, sandy beaches, tidal flats and rocky shores.

BIO 237. Plants and Civilization (3) An introduction to the plant kingdom, the diversity, structure, and function of plant life, and the impact of plants on human culture, history, civilization and economics.

BIO 238. Microbes and Human Society (3) An introduction to the world of the microorganism, focusing on the diversity, structure and function of microbial life, the spread and control of disease-producing organisms, and the impact of these life forms on human culture, history, and civilization.

BIO 240 - 241. Human Anatomy and Physiology (4-4) A comprehensive introduction to the anatomy and physiology of the human organism. Organ systems of the body are discussed individually and as parts of interacting groups, with emphasis on the processes which maintain an internal steady-state. Three lecture and three laboratory hours each week.

BIO 246. Microbiology of Human Diseases (4) Prerequisite: BIO 240. An introduction to the biology of microorganisms which affect humans. Emphasizes pathogenic and related microorganisms. The basic microbiological techniques needed to isolate, identify and control microorganisms will be covered. Three lecture and three laboratory hours each week.

BIO 315. Comparative Vertebrate Anatomy (4) Prerequisite: BIO 110-111. Comparative morphology and phylogenetic interrelationships of vertebrate animals; representative organisms dissected in laboratory. Three lecture and three laboratory hours each week.

BIO 316. Vertebrate Embryology (4) Prerequisite: BIO 206. Fundamental principles of embryonic development of vertebrate animals; frog, chick, and pig emphasized. Three lecture and three laboratory hours each week.

BIO 335. Genetics (3) Prerequisite: BIO 110-111. Principles of Mendelian heredity, linkage, mutation, population genetics, and gene action.

BIOL 335-51. Genetics Laboratory (1) Corequisite: BIO 335. Demonstration of basic heredity principles through study of Drosophila and other genetic systems. Three laboratory hours each week.

BIO 341. Clinical Calculations (1) Prerequisite: Junior status. Laboratory calculations specifically for Medical Technology majors, although it is open to other majors as well.

Reviews basic chemical calculations and introduces the common mathematic applications in medical/biological laboratory.

BIO 345. Animal Physiology (4) Prerequisite: BIO 110-111 and CHM 102. Comparative study of physiological processes in different organisms approached through study of tissues, organs, and systems. Three lecture and three laboratory hours each week.

BIO 347. Molecular Biology of the Cell (3) Prerequisite: BIO 110-111 and CHM 211. Chemical and physical properties of cells. Emphasis on molecular biology and experimental biological systems used to elucidate cellular function.

BIOL 347-51. Molecular Biology of Cell Laboratory (1) Prerequisite or corequisite: BIO 347. Experiments demonstrating basic phenomena underlying cellular function. Three laboratory hours each week.

BIO 349. (PED 349) Physiology of Exercise and Sport (4) Prerequisite: BIO 215 or 345. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and two laboratory hours each week.

BIO 355. Plant Physiology (4) Prerequisite: BIO 110-111 and CHM 102. A study of plant function at the molecular, cellular, and organismic levels. Emphasis placed on unique aspects of vascular plants. Topics include water relations, solute transport, photosynthesis, nitrogen metabolism, plant hormones, photocontrol of development, and stress physiology. Three lecture and three laboratory hours each week.

BIO 356. Vertebrate Natural History (4) Prerequisite: BIO 206. Identification, classification, and life histories of common vertebrate animals of eastern North Carolina with emphasis on field work. Two lecture and four laboratory hours each week.

BIO 358. Marine Mammals (3) Prerequisite: BIO 206. Study of pinnipeds, cetaceans, and sirenians, emphasizing their evolution and taxonomic relationships, anatomical and physiological adaptations, ecologic and economic importance, and natural history.

BIO 362. Marine Biology (4) Prerequisite: BIO 110-111 and corequisite: BIO 205 or 206. The coastal and oceanic biota and their relationships to the marine environment. Three lecture and three laboratory hours each week.

BIO 365. Invertebrate Zoology (4) Prerequisite: BIO 206. Invertebrate organisms with emphasis on structure, function, taxonomy, phylogeny, and life histories. Three lecture and three laboratory hours each week.

BIO 366. Ecology (4) Prerequisite: BIO 205 or 206. Ecological principles pertaining to both plants and animals. Three lecture and three laboratory hours each week.

BIO 371. Human Fungal Diseases. (1) Prerequisite: BIO 110-111. An in-depth consideration of human mycotic diseases for medical technology, nursing and premedical students. Emphasis will be placed on etiology, predisposing conditions, clinical diag-

nosis, immunology, serology and therapy of most presently recognized human mycoses.

BIO 375. Plant Morphology (4) Prerequisite: BIO 205. Morphological survey of algae, fungi, bryophytes, lower vascular plants, and seed plants, with emphasis on life histories, structure, and development. Three lecture and three laboratory hours each week.

BIO 410. (512) Electron Microscopy and Cell Ultrastructure (3) Prerequisite: BIO 347. A discussion of the general and specialized techniques of transmission and scanning electron microscopy and their application to the elucidation of the structure and function of cell organelles in plants and animals.

BIOL 410-51. (512-51) Electron Microscopy Laboratory (1) Corequisite: BIO 410 and permission of instructor. Techniques for fixing, embedding, and thin sectioning of tissues will be demonstrated. Students will prepare a material of choice for observation and analysis and examine the prepared material with the electron microscope. Three laboratory hours each week.

BIO 415. (520) Vertebrate Histology (4) Prerequisite: BIO 206. An introduction to the cytology and morphology of vertebrate cells and tissues, including examination of the four major histological tissues: epithelium, connective tissue, muscle, and nerve. Other topics include the techniques and instrumentation of light microscopy and selected methods of sectioning, fixation, and staining of tissues. Student project required. Three lecture and three laboratory hours each week.

BIO 420. (541) Pathophysiology (3) Prerequisite: Permission of the instructor. Survey of the physiologic and biologic manifestations of disease, emphasizing how alterations in structure and/or function disrupt the human body as a whole. Overall mechanisms of disease are introduced and described to allow coverage of specific diseases within each system.

BIO 425. (524) Microbiology (4) Prerequisite: BIO 110 and 111 and junior status. Study of nonpathogenic and pathogenic microorganisms with emphasis on the biology of viruses and bacteria. Laboratory sessions include techniques required to identify, culture and stain selected microorganisms. Three lecture and three laboratory hours each week.

BIO 430. (529) (ANT 430) Evolutionary Biology (3) Prerequisite: BIO 335. Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature.

BIO 435. (535) Molecular Genetics (3) Prerequisite: CHM 102, BIO 335 and 347 or 465. An overview of current understanding of the nature, function, and control of genes. Topics include the nature of genetic information; the sequence organization and packaging of the eucaryotic genome; DNA, RNA, and protein synthesis; recombinant DNA technology; RNA processing; transposable genetic elements; and antibody diversity, synthesis, and function.

BIO 436. (536) Recombinant DNA Techniques (2) Prerequisite: One of the following: BIO 335, 347, or 465. Basic principles and techniques of gene cloning using three major types of cloning vectors; lambda phage, plasmids, and the single stranded DNA phage M13. Provides hands-on experience in recombinant DNA methology. One lecture and four laboratory hours each week.

BIO 440. (544) Developmental Biology (4) Prerequisite: BIO 335. Concepts of mechanism and control in development. Topics include cell lineage determination, differential gene activity, cell recognition phenomena, hormones, and environmental control of development. Plant and animal systems studied in modern research literature will be discussed. Three lecture and three laboratory hours each week.

BIO 441. Introduction to Immunology (1) Prerequisite: BIO 110-111. Prerequisite or corequisite: CHM 211. A general survey of modern immunological principles.

BIO 445. (545) Marine Physiology (4) Prerequisite: BIO 365. Introduction to physiological system characteristic of marine vertebrates and invertebrates. Emphasis on the mechanisms underlying osmoregulation, respiration, temperature regulation, digestion, and movement. Three lecture and three laboratory hours each week.

BIO 446. (571) Phycology (4) Prerequisite: BIO 205. An introduction survey of algal groups including benthic planktonic freshwater and marine representatives in local environments. Morphology, life histories, and ecology are emphasized. Collection and preservation techniques are demonstrated. Three lecture and three laboratory hours each week.

BIO 452. (554) Mammalogy (4) Prerequisite: BIO 206. Study of mammals, emphasizing their evolution, taxonomic relationships, structural and physiological adaption, and life histories. Laboratory sessions will include collection, identification, and preparation of specimens and observations of mammals in the field. Three lecture and three laboratory hours each week.

BIO 454 (557) Herpetology (4) Prerequisite: BIO 206. Study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Three lecture and three laboratory hours each week.

BIO 456. (556) Ornithology (4) Prerequisite: BIO 206. An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

BIO 457. (537) Ichthyology (4) Prerequisite: BIO 206. The systematics, evolution, and natural history of fishes, with field work emphasizing the ecology and behavior of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

BIO 458. (565) Fisheries Biology (4) Prerequisite: BIO 457, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, migration and economic

pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

BIO 460. (567) Limnology (4) Prerequisite: BIO 110-111 and CHM 102 and junior status. An examination of the physical, chemical, and biological characteristics of freshwater systems, particularly lakes, with an emphasis on the interrelationships of these characteristics. Three lecture and three laboratory hours each week.

BIO 462. (552) Deep Sea Biology (3) Prerequisite: BIO 362. Biology of animals inhabiting the deep sea environment off North Carolina. Emphasizes faunal zonation, abyssal zoogeography, high pressure and low temperature adaptations, reproductive strategies, origin and speciation in deep sea.

BIO 465. (540) Biochemistry (3) Prerequisite: BIO 110-111 and CHM 211 and junior status. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzymes kinetics; bioenergetics regulatory mechanisms.

BIO 466. (534) Advanced Ecology (4) Prerequisite: BIO 366. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

BIO 468. (570) Planktonology (4) Prerequisite: BIO 365 or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

BIO 470. Ecology of Human Populations (3) Prerequisite: BIO 345, 366. A study of man's adaptation to diverse world environments utilizing geological, physiological, and ecological principles.

BIO 472. (572) Marine Phycology (4) Prerequisite: BIO 205. An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction. Three lecture and three laboratory hours each week.

BIO 474. (576) Comparative Morphology of Vascular Plants (4) Prerequisite: BIO 205. An in-depth study of the major groups of vascular plants with emphasis on structure, life histories, development, and phylogeny. Three lecture and three laboratory hours each week.

BIO 475. (574) Plant Taxonomy (4) Prerequisite: BIO 205. An introduction to identification, classification, and nomenclature of vascular plants with emphasis on the flora of southeastern North Carolina. Two lecture and four laboratory hours each week.

BIO 477. (573) Mycology (4) Prerequisite: BIO 110-111. Taxonomy, morphology, and ecology of fungi with emphasis on fungal evolution and the importance of fungi to humans. Fungi as agents causing both plant and animal diseases will be discussed. Three lecture and three laboratory hours each week.

BIO 478. Global Environmental Problems (3) Prerequisite: BIO 111 or CHM 102 or EVS 195 and junior status. Review and discussion of causes and effects of major environmental problems, with emphasis on ecosystem-level effects and interactions. Topics include extinction, deforestation, climate change, pollution impacts.

BIO 480. (580) Field Studies in Biology (1-6) Prerequisite: BIO 205, 206, and consent of instructor (BIO 366 and credit in advanced zoology or botany recommended). A research/experience-oriented field course offered in selected regional locales. Emphasis is placed on distribution, taxonomy, and ecology of animal and/or plant organisms.

BIO 481. (559) Marine Invertebrate Zoology (4) Prerequisite: BIO 205 and 206. A field oriented course that provides in-depth ecological and taxonomic treatment of selected invertebrate groups. Three lecture and three laboratory hours each week.

BIO 485. (585) Special Topics in Advanced Biology (1-6) Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

BIO 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of instructor, and consent of department chairperson.

BIO 495. Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Individual reports and group discussions of the results of student field, laboratory and/or library research on selected topics in biology. May be repeated for a maximum of three semester hours.

BIO 499. Honors Work in Biology (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honor students.

For 292 and 492; 294 and 494 see explanations, on p. 90.

CHEMISTRY

Dr. Levy, *Chairperson.* Dr. Adcock, Dr. Burgess, Dr. Cahill, Dr. Hornack, Ms. R.B. Jones, Dr. S.B. Jones, Dr. Kieber, Dr. Manock, Dr. Martin, Dr. Nance, Dr. Reeves, Dr. Sayed, Dr. Seaton, Dr. Ward, Dr. Willey, Dr. Zimmer.

Requirements for a Concentration in Chemistry for the B.A. degree: Core courses: CHM 101-102, CHML 101-51, 102-51, CHM 211-212, CHML 211-51, 212-51, CHM 225, 235, CHML 235-51, CHM 325, CHML 325-51, CHM 355, 445, 495 or EVS 495, MAT 161-162, and PHY 201-202 or 101-102.

Also required are the courses in one of the following emphasis alternatives:

Education: Teacher Education Program requirements, and four of the following courses: BIO 110-111, 205, 206; GLY 101, 120, and 150; and PHY 260. Students completing this option qualify for teaching certification in chemistry. By including one biology course from BIO 110-111, 205, 206, and two geology courses from GLY 101, 120, and 150, students completing this option also qualify for certification in science.

Environmental Science: CHM 277, BIO 110-111, EVS 195, GLY 120, and STT 215.

Industrial Chemistry: CHM 277 and 485; either 315-316 or 435 and CHML 435-51; ACG 201, and either PDS 217 or STT 215. CHM 485 offered spring 1993 and alternate years.

Marine Science: CHM 475, BIO 110-111, 362 and GLY 150.

Premedical Science: CHM 417 and 465 and BIO 110-111, and 206. CHM 417 offered spring 1992 and alternate years.

A "C" or better on each chemistry course.

Requirements for a Concentration in Chemistry for the B.S. degree: CHM 101-102, CHML 101-51, 102-51, CHM 211-212, CHML 211-51, 212-51, CHM 225, 235, CHML 235-51, CHM 315-316, 321-322, CHML 321-51, 322-51, CHM 355, 435, CHML 435-51, CHM 445, CHML 445-51, CHM 495 and two of the following: CHM 415, 446, 465, 485 and 491 (3 hours). MAT 161, 162, 261, and 361 and either PHY 201-202 or PHY 101-102, 206-207. A "C" or better on each chemistry course. Students working for the B.S. degree should arrange their work so as to take CHM 321-322 in the junior year. Two years of German are recommended.

Chemistry Course Descriptions

CHM 101-102. General Chemistry (3-3) Prerequisite or corequisite: MAT 111-112 or 115. Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Normally taken concurrently with CHML 101-51, 102-51.

CHML 101-51, 102-51. General Chemistry Laboratory (1-1) Prerequisite or corequisite: CHM 101-102. Introduction to techniques and equipment in the chemistry laboratory; interpretation of experimental results. Quantitative and qualitative analysis included. Three laboratory hours each week.

CHM 103. Chemistry in Everyday Life (4) A terminal, relatively non-mathematical one-semester course in chemistry for the nonscience major. Topics include atomic and molecular structure as a basis for a general understanding of chemical reactions, drug activity, cancer, nuclear power, pesticides, environmental problems, energy resources, food additives, and the chemical industry. Three lecture and three laboratory/discussion hours each week. May not be taken for credit after CHM 102 has been passed.

CHM 115. Fundamentals of General and Organic Chemistry (3) Prerequisite or corequisite: MAT 111. A one-semester study of general and organic chemistry. Topics include measurement, states of matter, energy, atomic theory, bonding, reactions, gases, water, solutions, acidity, radioactivity, and an introduction to organic chemistry. Prepares students for CHM 215.

CHML 115-51. Laboratory for Fundamentals of General and Organic Chemistry (1) Corequisite: CHM 115. Introduction to techniques and equipment in the chemistry laboratory and interpretation of experimental results. Three laboratory hours each week.

CHM 211-212. Organic Chemistry (3-3) Prerequisite: CHM 102 and CHML 102-51. Introduction to the chemistry of carbon compounds, including structural theory, synthesis, and reaction mechanisms. Normally taken concurrently with CHML 211-51, 212-51.

CHML 211-51, 212-51. Organic Chemistry Laboratory (1,1) Prerequisite or corequisite: CHM 211-212. Three laboratory hours each week.

CHM 215. Fundamentals of Organic and Biological Chemistry (3) Prerequisite: CHM 115 and CHML 115-51. A one-semester study of organic and biological chemistry. Topics include carboxylic acids, esters, amines, amides, carbohydrates, lipids, proteins, nucleic acids, nutrition, enzymes, hormones, neurotransmitters, and intermediary metabolism.

CHML 215-51. Laboratory for Fundamentals of Organic and Biological Chemistry (1) Corequisite: CHM 215. Introduction to equipment and techniques of organic and biological chemistry and interpretation of experimental results. Three laboratory hours each week.

CHM 225. Chemical Applications of Microcomputers (2) Prerequisite: CHM 102. A study of microcomputer applications in chemistry, including an introduction to microcomputer design, peripherals, applications software and preventive maintenance. Discussion of microcomputer communications and instrument interfacing. Programming in BASIC with chemical applications. No previous computer experience required. Intended for students who will be taking CHM 235, 321, or 325.

CHM 235. Quantitative Analysis (2) Prerequisite: CHM 102, CHML 102-51. Prerequisite or corequisite: CHM 225. Theory of (a) gravimetric and volumetric analysis, (b) instrumental techniques, and (c) sampling, sample preparation, and monitoring of air, water, etc. Normally taken concurrently with Quantitative Analysis Laboratory.

CHML 235-51. Quantitative Analysis Laboratory (2) Prerequisite or corequisite: CHM 235. Four laboratory hours each week.

CHM 277. Environmental Chemistry (3) Prerequisite: CHM 102. Introduction to the chemistry of air, soil, and natural waters. Processes of environmental degradation, cleanup, and pollution prevention. Selected current topics.

CHM 315-316. Advanced Techniques of Organic Chemistry (2-2) Prerequisite or corequisite: CHM 211-212 and CHML 211-51, 212-51. Theory and practice of chromatographic methods of separation and spectroscopic methods of identification. One lecture and three laboratory hours each week.

CHM 321. Physical Chemistry (3) Prerequisite: CHM 102, 225 or equivalent, PHY 202, and MAT 261. Properties of matter, kinetic molecular theory, fundamentals of thermodynamics, phase equilibria, thermodynamics of chemical reactions, ionic equilibria, and electrochemistry.

CHM 322. Physical Chemistry (3) Prerequisite: CHM 102, 225 or equivalent, PHY 202, and MAT 261. Chemical kinetics, introduction to quantum mechanics, atomic and molecular structure, and spectroscopy.

CHMl 321-51, 322-51. Physical Chemistry Laboratory (1,1) Prerequisite or corequisite: CHM 321 and 322, respectively. Three laboratory hours each week.

CHM 325. Brief Physical Chemistry (4) Prerequisite: CHM 102, 225 or equivalent experience, one sequence in physics and MAT 161. An abbreviated course in funda-

mentals of physical chemistry. Normally taken concurrently with CHML 325-51. May not be taken for credit after 321 has been passed.

CHML 325-51 Brief Physical Chemistry Laboratory (1) Prerequisite or corequisite: CHM 325. Three laboratory hours each week.

CHM 355. History and Literature of Chemistry (1) Prerequisite: Junior standing. Introduction to chemical literature and sources of information and to the historical development of chemistry.

CHM 415. Advanced Organic Chemistry (3) Prerequisite: CHM 212. Theoretical organic chemistry with emphasis on reaction mechanisms and special synthetic methods.

CHM 417. (517) Medicinal Chemistry (3) Prerequisite: CHM 212. Systematic study of the chemistry, as well as the biological activity of hormones, vitamins, drugs affecting the nervous system, and other miscellaneous agents. Prior CHM 415 or CHM 465 is recommended. Spring 1992 and alternate years.

CHM 435. (535) Advanced Analytical Chemistry (2) Prerequisite: CHM 235, either 321 or 325, and their laboratories. Theory of modern analytical instrumentation and techniques. Normally taken concurrently with CHML 435-51.

CHML 435-51. (535-51) Advanced Analytical Chemistry Laboratory (2) Prerequisite or corequisite: CHM 435. Four laboratory hours each week.

CHM 445. Inorganic Chemistry (3) Prerequisite: CHM 321 or 325. Study of periodic relationships: crystal lattice theory; transition metals and ions; crystal field theory; organometallic structures and reactions; and reaction mechanisms.

CHML 445-51. Inorganic Synthesis (1) Prerequisite or corequisite: CHM 445. Synthesis and techniques in inorganic chemistry. Normally taken concurrently with CHM 445. Three laboratory hours each week.

CHM 446. (546) Advanced Inorganic Chemistry (3) Prerequisite: CHM 445. Topics in inorganic chemistry, including ligand field theory; chemical applications of group theory; hybridization of orbitals and molecular orbital theory, molecular vibration, spectroscopy, and principles of quantum mechanics. This course will emphasize these topics in the framework of the molecular symmetry.

CHM 465. (565) Biochemistry (3) Prerequisite: CHM 212 and either 321 or 325. Study of the physical structures of carbohydrates, lipids, amino acids, proteins, nucleic acids, vitamins and minerals and the chemical principles governing their biological activity. Special emphasis will be given to enzyme kinetics, solution properties of macromolecules, and the thermodynamic principles of intermediary metabolism.

CHML 465-51. (565-51) Biochemical Techniques and Instrumentation Lab (1) Prerequisite or corequisite: CHM 465. Theory and practice of advanced biochemical techniques, including buffer and reagent preparation, protein assay, protein purification,

electrophoresis, enzyme kinetics, tryptic peptide digestion, membrane vesicle construction, DNA isolation, and radioisotope detection. Three laboratory hours each week.

CHM 475. (575) Chemical Oceanography (3) Prerequisite: CHM 102. Sources, distribution, forms of occurrence, and reactions of chemical species in seawater. This course will emphasize estuarine reactions, dynamic equilibria, air-seawater and sediment-seawater reactions, and human impact on the oceans. Prior GLY 150 is recommended. Spring 1992 and alternate years.

CHM 476. (576) Chemical Analysis of Natural Waters (2) Prerequisite: One of the following: CHM 235, 277, or 475. Standard chemical methods will be used to analyze natural water samples, including fresh water samples and seawater. Methods will be evaluated with respect to appropriate applications. Analyses to be studied include salinity, chloride, dissolved oxygen and oxygen demand, pH and alkalinity, nutrients, chlorophyll, suspended material, and dissolved metals. One lecture and three laboratory hours each week.

CHM 485. (585) Industrial and Polymer Chemistry (3) Prerequisites: Physical chemistry and two semesters of organic chemistry. Properties, synthesis, and reactions of major industrial chemicals; synthetic plastics, polyesters, polyamides, and rubbers; soaps and detergents; petrochemicals; paints and pigments; dyes; explosives; pulp and paper; pharmaceutical and nuclear industries; mechanism of polymerization, copolymerization; physical and chemical properties of polymers; polymer characterization; advances in polymer technology.

CHM 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

CHM 495. Senior Seminar (1-3) Prerequisite: CHM 355 and 25 semester hours of chemistry courses. Discussion of selected topics. One hour each week.

CHM 499. Honors work in Chemistry (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honors students.

For 292 and 492; 294 and 494, see explanation on p. 90.

CRIMINAL JUSTICE

(See Sociology and Anthropology)

COMMUNICATION STUDIES

Dr. Weiss, *Chairperson*. Dr. Comeaux, Dr. McKinney, Dr. Noor Al-Deen, Dr. Pullum, Dr. Rohler, Dr. Tallant, Mr. Trimble.

Requirements for a Concentration in Communication Studies for the B.A. degree: COM 105; 220 or 221; 110, 116, 210, 230, 316, 320, 325, 415, or 170 (exactly three times); 265 or 327; 275 or 276; 340; 341; 490; ANT 208 or COM 390; ENG 320; P&R 110 or COM

277; PSY 311; and six hours of foreign languages and literatures or computer science language. The collateral emphasis area (18 hours) will be determined individually in consultation with the advisor. A grade of "C" or better on all required courses in the concentration.

Communication Studies Course Descriptions

COM 105. Fundamentals of Speech (3) Principles and basic skills in speaking and listening; classroom exercise and discussion.

COM 110. Public Speaking (3) Preparation and presentation of public speeches, with emphasis in analysis, reasoning, organization, evidence, and delivery.

COM 116. Performance of Literature (3) The study and analysis of literature through the medium of oral performance.

COM 170. Intercollegiate Forensics (1) One hour of academic credit each semester (up to eight hours total) for participation in debate and/or individual speaking events on the intercollegiate Forensics Team.

COM 210. Performance of Children's Literature (3) Principles of performance and analysis of children's literature, with special emphasis on prose and poetry for younger children. Traditional folk tales, picture books, and contemporary poetry are stressed.

COM 220. Interpersonal Communication (3) This course focuses upon the communication process in face-to-face situations. It is designed to improve the everyday communication skills of the student through a greater understanding of the interpersonal process. Emphasis is placed upon the development of interviewing techniques, information acquisition and persuasive dialogues.

COM 221. Group Discussion (3) Prerequisite: COM 105 or consent of instructor. The study of and practice in oral group methodologies, including panel, forum and symposium speaking.

COM 230. Voice and Diction (3) Principles and use of the voice exercises in vocal variety, articulation and pronunciation.

COM 265. Survey of Mass Communication (3) An examination of U.S. radio, television, newspaper, magazines and film. Emphasis on their development, functions, theoretical foundations, present uses, and effects. Special project required.

COM 268. Broadcast Journalism (3) Prerequisite: ENG 102. Principles and basic skills in writing for the broadcast media; includes exercises inside and outside of classroom. Emphasis on broadcast news writing, news coverage, news editing, and news problems and potentials.

COM 270. Parliamentary Procedure (1) Principles and rules governing deliberative assemblies.

COM 275. The Art of Persuasive Speech (3) Prerequisite: COM 105 or consent of instructor. Power of speech as a tool to control thought processes of others in both negative and positive ways.

COM 276. Debate (3) Prerequisite: COM 105, 170, or consent of instructor. Principles of argumentation and style in their application to formal debate; practice in conventional debate form on current national intercollegiate debate resolution.

COM 277. Argumentation (3) Prerequisite: COM 105, P&R 110, or consent of the instructor. Principles of argumentation, including theory and practice. Emphasis on development of argument-analysis skills. Techniques for clear, effective, and reasoned advocacy.

COM 290. Rhetoric of Popular Culture (3) Analysis will focus upon an understanding of the various persuasive influences inherent in modern society. Area of emphasis will include analysis of persuasive appeals in advertising, music, art, movies, theatre, social movements, politics, literature, and sports.

COM 295. Seminar in Communication Studies (3) Prerequisite: COM 105. Special topics in communication that are not dealt with in other courses.

COM 316. Advanced Performance of Literature (3) Prerequisite: COM 116, or DRA 231, or consent of instructor. Application of performance skills to contemporary literature; emphasis on direct engagement with performance and performance theory. Character biography, improvisation, and creative dramatics exercises are stressed.

COM 320. Performance of Southern Literature (3) Prerequisite: COM 116 or consent of instructor. Focuses primarily on prose, fiction, and humorous essay by contemporary authors including Welty, O'Conner, McCorkle; explores basic and advanced performance techniques.

COM 325. Business and Professional Speaking (3) Prerequisite: COM 105. Public speaking skills in directed experiences especially related to speech communication tasks which accompany the role of a business or professional person. Topics include the delivery of briefings, manuscript speeches, conferences, interviewing, salesmanship, use of electronic extenders and visual aids.

COM 327. Organizational Communication (3) Prerequisite: COM 105. The study of communication in organizations: theories of communication and their applications to organizations.

COM 340. Communication Theory (3) Prerequisite: COM 105 or consent of instructor. The course explores theoretical perspectives concerning how and why people communicate. Emphasis placed on a greater understanding of the human communication process.

COM 341. Rhetorical Theory (3) Prerequisites: COM 105, 340, or consent of instructor. Introduction to the basic classical and contemporary theories of rhetoric from Plato through the present.

COM 345. Speech Writing (3) Prerequisite: COM 105, ENG 102. The theory and practice of speech writing with special emphasis on writing speeches for others.

COM 360. Mass Media Research (3) Prerequisite: COM 265 or consent of instructor. Research techniques of the mass media through application of various methods to broadcast and print media, advertising, and public relations.

COM 365. The Broadcast Regulatory Process (3) Prerequisite: COM 265, 268, or consent of instructor. Survey of broadcast history, law, politics, and regulation with emphasis on the roles of the Federal Communications Commission, the White House, Congress, courts, citizen's groups, and the broadcast industry itself in creating and enforcing broadcast regulations.

COM 390. Intercultural Communication (3) Prerequisite: COM 105, 220, or consent of instructor. Communication factors unique to interactions between members of different cultures, appropriate rhetorical and practical knowledge about the intercultural communication process, as well as an understanding of international communication.

COM 415. Group Performance (3) Prerequisite: COM 116, DRA 355, or consent of instructor. Principles of group performance, with special emphasis on theories and skills related to narrative or Chamber Theatre. Selection, adaptation, director, and performance of prose fiction are stressed.

COM 421. Communication for Public Relations (3) Prerequisite: Any one of the following: COM 265, 268, 275, 327, 340, 365, 465 or ENG 202. Principles of public relations, with special emphasis on those theories and skills relevant to the communication functions of businesses and non-profit organizations.

COM 422. Advanced Communication for Public Relations (3) Prerequisite: COM 421 or consent of instructor. Application of public relations skills to the contemporary organization, with emphasis on public relations as a managerial communication system. Public relations campaign management, programming, implementation and evaluation are stressed.

COM 441. Rhetorical Criticism (3) Prerequisite: COM 341 or consent of instructor. Contemporary and traditional methods of criticizing public discourse. Topics include Neo-Aristotelian, Eclectic, Burkian, and Feminist approaches.

COM 445. Nonverbal Communication (3) Prerequisite: COM 105. Study of nonverbal behavior as a communication system with emphasis on theory and research. Topics include touch, eye contact, body language, paralanguage, and space.

COM 450. History of Rhetoric and Public Address (3) A survey of the development of rhetorical principles and style as evidenced by significant historical personalities and the literary genre of public address.

COM 465. Mass Communication in Society (3) Prerequisite: COM 265. A seminar encompassing the development of mass communications, the obligations of the press,

radio and television, the government and the right to know, censorship, invasion of privacy and other effects of mass communications.

COM 467. Broadcast Advertising and Audience Analysis (3) Prerequisite: COM 265 or consent of instructor. Broadcast advertising and audiences from a theoretical and practical perspective. Mass communication theories applied in a practical setting as students conduct a major audience analysis for a mass media organization. Includes analysis and use of survey/research methodology.

COM 485. Senior Project (3)

COM 490. Senior Seminar in Communication Studies (3) Prerequisite: Senior standing in speech communication. Study of major theoretical concerns in the field of speech communication. Research project required. Content varies with instructor.

COM 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of the department chairperson.

COM 498. Internship in Communication Studies (3-6) Prerequisite: Permission of speech communication faculty and senior status. A program of work and study conducted within an agency and/or setting which provides practical experience with observation and applications of theoretical concepts in speech communication. Open to qualified students with permission of the speech communication faculty.

COM 499. Honors Work in Communication (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492; 294 and 494, see explanation of p. 90.

DRAMA

(See Fine Arts)

EARTH SCIENCES

Dr. Laws, *Chairperson.* Dr. Ainsley, Mr. Blake, Dr. Cleary, Dr. Conner, Dr. Dockal, Dr. Hall, Dr. Harris, Dr. Huntsman, Dr. Kiefer, Dr. Randall, Dr. Thayer, Dr. Zullo.

The Department of Earth Sciences offers concentrations in geography and geology which prepare the student for advance studies or for teaching, research and technical careers available to one who holds the baccalaureate degree.

Requirements for a Concentration in Geography for the B.A. degree: Core requirements: GGY 110, 130, 140, 220, 270, 320, 325, 429, 495. Collateral requirements are CSC 121 and STT 205 or 215. In addition there are two options, described below, one of which a student must elect in order to complete the degree requirements. A "C" (2.0) or better average on all courses taken within the department, and a "C" (2.0) or better average on all required courses above the 100-level in the department.

Option 1.

This option provides a broad, flexible program to meet personal educational goals and interests including careers and graduate study in geography.

(a) Physical Geography: seven hours selected from GGY 230, 332, 333, or 335.

(b) Economic and Urban Geography: six hours selected from GGY 312, 315 and 317.

(c) Applied Geography and Planning: six hours selected from GGY 322, 372, 375, and 378.

(d) Cultural Geography: nine hours, including three hours in regional geography, selected from GGY 240, 255, 282, 350, 352, 382, and 385.

Option 2.

This option is designed specifically for students interested in pursuing careers and/or graduate study in planning and applied geography.

(a) GGY 312, 317, 333, and 335.

(b) GGY 496 or 498 and six hours selected from GGY 372, 375, 378.

(c) 6 hours selected from GGY 322, 350, 382, ECN 125, PLS 207, 308, and SOC 315, 385.

Geography Course Descriptions

(Department of Earth Sciences)

GGY 110. Economic Geography (3) Human economic activities, their location and relationships to physical and economic conditions of the environment.

GGY 130. Introduction to Physical Geography (4) Spatial distribution of environmental elements and processes, including weather and climate, groundwater, soils, rocks, plate tectonics, landforms, and vegetation. Three lecture and two laboratory hours each week.

GGY 140. Introduction to Human Geography (3) Survey of the geography of human settlement patterns and activity throughout the world. Emphasis on relationships between physical environments and different facets of human culture, including population, resources, regional development, urban growth, and political, linguistic, and religious patterns.

GGY 220. Map Reading and Interpretation (3) Introduction to the fundamentals of using and understanding maps. Examination of location, scale, map projections, elevation and relief. Recognition of map symbols, shapes and patterns in the natural and cultural landscapes as represented on topographic maps. Interpretation of thematic maps and an understanding of computer aided mapping and geographic information systems. Two lecture and two laboratory hours each week.

GGY 230. Introduction to Weather and Climate (3) Examination of general climatic characteristics through space and time, especially as influenced by controls upon temperature, wind and moisture distributions, and by planetary, regional and local atmospheric disturbances.

GGY 240. Population Geography (3) Prerequisite: GGY 140 or consent of instructor. A study of the spatial dimensions of population growth, density and movement and of

the shifts in these patterns as they relate to changes in selected socio-economic and cultural phenomena.

GGY 255. Historical Geography of the Middle East (3) Geographical, archaeological, historical and geological investigation of the physical environment and cultural landscapes that provided the settings for the evolution of the population, economics and cultures of Southwestern Asia.

GGY 270. Principles of Land Use Planning (3) Prerequisite: GGY 130 and 140 or consent of instructor. Introduction to planning techniques and to planning as a profession. Classification and analysis of spatial variations in land use patterns and development processes as they relate to the physical environment and human activities.

GGY 282. Geography of North Carolina (3) Prerequisite: GGY 140 or consent of instructor. A survey of the physical and cultural landscapes of North Carolina with the emphasis on an understanding of the complex geographical variety that exists within a dynamic and growing southern state.

GGY 312. Geography of Transportation (3) Prerequisite: GGY 110 or consent of instructor. Study of the structural elements of transportation systems and the spatial processes associated with their development.

GGY 315. Industrial Geography (3) Prerequisite: GGY 110 or credit in economics or consent of instructor. Factors underlying the distribution, development and character of manufacturing activities and industrial regions. Emphasis is placed upon location theory.

GGY 317. Urban Geography (3) Prerequisite: Credit in a social science or in history or consent of instructor. Analysis of the spatial distribution, growth, function and structure of urban places with emphasis on urban developments and problems in the United States.

GGY 320. Elementary Cartography (3) Prerequisite: GGY 220. Techniques of drafting, map projection,and map designs; methods of data representations on maps. One lecture and four laboratory hours each week.

GGY 322. Aerial Photography and Remote Sensing (3) Prerequisite: GGY 130, 220 or GLY 101. Introduction to the use of aerial photography and other remote sensing techniques to analyze topography, geology, vegetation and culture. Two lecture and three laboratory hours each week.

GGY 325. Quantitative Methods in Earth Sciences (3) Prerequisite: STT 205 or 215. Use and interpretation of statistical techniques in geographic and geologic research. The course emphasizes problem identification, data collection and interpretation through assignments covering specific kinds of statistical methods.

GGY 332. Soils and Vegetation Geography (3) Prerequisite: GGY 130. Global distribution of soils; soil-forming processes; principles underlying the distribution of plants in their terrestrial environments; methodology of vegetation sampling; introduction to

principle field techniques and evaluation; description of modern global vegetation biomes and their development by physiographic pedogenic, climatic, and evolutionary events of the past.

GGY 333. Applied Climatology (4) Prerequisite: GGY 130 or 230 or consent of instructor. The spatial distribution and character of climates, their relation to other elements of the environment and to human activities. Three lecture and two laboratory hours each week.

GGY 335. Introduction to Geomorphology (4) Prerequisite: GGY 130 or GLY 101 or consent of instructor. Description and classification of land forms; analysis of the geologic, climatic and biologic factors involved in their formation; survey of geomorphic provinces of the United States. Three lecture and two laboratory hours each week.

GGY 350. Political Geography (3) Prerequisite: Credit in a social science or in history or consent of instructor. Geographic factors in the development of nations and in contemporary national and international affairs.

GGY 352. Historical Geography of the United States (3) Prerequisite: HST 201 or GGY 140 or consent of instructor. A study of the evolution of the cultural landscapes and the spatial patterns of the area that is now the United States. Examination of past geographies and of geographical change through time.

GGY 372. Urban and Community Land Use Planning (3) Prerequisite: GGY 270. Application of principles and concepts of physical planning in urbanized areas and analysis of community development programs. Explores the spatial structure of cities, neighborhood planning, housing issues, revitalization programs and urban design principles.

GGY 373. Regional and Environmental Land Use Planning (3) Prerequisite: GGY 270. Overview of the concepts and processes related to the regional growth and development. Review of the regional land use issues; discussion of planning strategies; and evaluation of regional land use plans and policies.

GGY 375. Rural Land Use Planning (3) Prerequisite: GGY 270. Concepts of planning applied to the protection of open space in the face of increasing development demands and pressures. Topics include farmland retention, landscape assessment, land trusts, preservation and scenic easements, zoning techniques and land use plans.

GGY 378. (HST 378) Historic Preservation Planning (3) Prerequisite: GGY 270, or 352 or consent of instructor. An applied research course which deals with the procedures employed by federal, state and local agencies in locating, recording, restoring and preserving American architectural resources and material cultural heritage. Subjects examined include survey, documentation, and planning; historic districts; adaptive use; funding; legislation; and organizational roles.

GGY 382. Regional Geography of the United States (3) Prerequisite: GGY 140 or HST 202 or consent of instructor. A regional analysis of physical characteristics, resource base and human geography of the United States.

GGY 385. Regional Geography of Europe (3) Prerequisite: GGY 140 or HST 102 or consent of instructor. A regional analysis of the physical and cultural features of Europe.

GGY 429. History and Philosophy of Geography (3) Prerequisite: Senior standing in geography. Development of geographic thought and comparative evaluation of current philosophies concerning the nature of geography.

GGY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

GGY 495. Senior Seminar (1-3) Prerequisite: Senior standing in geography. May be repeated one time for credit. One to three hours each week.

GGY 496. Senior Thesis (2-2) Prerequisite: Senior standing in geography. A supervised senior thesis on a topic selected by the student, thesis advisor, and thesis committee. A written thesis, completed during a two-semester period, and an oral defense are required.

GGY 498. Internship (3) Prerequisite: Senior standing in geography, recommendation of advisor and consent of the geography faculty. The student works a minimum of twelve hours per week for an outside agency or individual in a position that enables the student to utilize academic training in a practical field experience. A summary paper and an oral presentation before the geography faculty are required.

GGY 499. Honors Work in Geography (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairperson. Individual study for honors students.

For 292 and 492; 294 and 494, see explanation on p. 90.

Requirements for a Concentration in Geology for the B.A. degree: GLY 101, 102, 200, 201, 231, 310, 431, 441, GGY 335 and GLY 495. Collateral requirements are CHM (lecture and laboratory) 101-102. MAT 111-112 or 115, and a minimum of 7 hours selected from biology, chemistry, computer science, geology, geography, mathematics or physics. A "C" (2.0) or better average on all courses taken within the department and a "C" (2.0) or better average on all required courses above the 100-level in the department. Geology majors working toward certification for secondary school teaching must also complete Teacher Education Program requirements.

Requirements for a Concentration in Geology for the B.S. degree: GLY 101, 102, 200, 201, 202, 231, 311, 312, 431, 441, and 495. Collateral requirements are CHM (lecture and laboratory) 101-102, MAT 161-162, PHY 101-102 or 201-202, and a summer field course in geology offered by another institution. A "C" (2.0) or better average on all courses taken within the department and "C" (2.0) or better average on all required courses above the 100-level in the department. Students planning to attend graduate school are urged to take CSC 111, and FRH 101-102 or GER 101-102.

Geology Course Descriptions

(Department of Earth Sciences)

GLY 101. Physical Geology (4) Study of the earth and the moon; constitution of the earth's crust; weathering, erosional and depositional processes; mountain building forces and the earth's internal composition. Field trips. Three lecture and three laboratory hours each week.

GLY 102. Historical Geology (4) Prerequisite: GLY 101. Geologic history of the earth; methods of interpreting the past; ancient environments; development and evolution of life. Required field trips. Three lecture and three laboratory hours each week.

GLY 120. (EVS 120) Environmental Geology (3) Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities.

GLY 131. Dinosaurs (2) Study of the Dinosaurs and other Mesozoic vertebrates as illustrations of the basic principles of vertebrate paleontology. Emphasis is placed on identification, systematics, evolution, ecology and extinction of the Dinosaurs.

GLY 135. Prehistoric Life (3) Introduction to the field of paleontology and the fossil record; the succession of life from its earliest beginnings through the Age of Dinosaurs to modern Man; evolutionary, environmental and ecological analyses of fossil plants and animals based on biologic and geologic principles.

GLY 150. Introduction to Oceanography (3) An introduction to the geology, physics, chemistry and biology of the ocean; instruments and techniques of oceanography; resources of the ocean. Required field trips.

GLY 200. Methods in Geology (3) Prerequisite: GLY 101; Corequisite: GLY 102. Introduction to various bibliographic, graphic, field, and laboratory methods essential to geologic studies. Weekly projects and required field trips.

GLY 201. Mineralogy (4) Prerequisite: GLY 101: Corequisite: CHM 101, including laboratory. Principles of chemical bonding in natural solids; crystal chemistry; physical conditions of mineral genesis; geologically significant mineral associations; crystallography; mineral identification. Required field trips. Three lecture and three laboratory hours each week. Fall.

GLY 202. Advanced Mineralogy (3) Prerequisite: GLY 201; Corequisite: MAT 112 or permission of instructor. The technique of mineral identification and analysis. Theory and application of the polarizing microscope and X-ray diffractometer. Introduction to the principles of the electron microprobe, X-ray fluorescence and atomic absorption. One lecture and four laboratory hours each week.

GLY 231. Invertebrate Paleontology (4) Prerequisite: GLY 102 or consent of instructor. History of fossil protistans and invertebrates with emphasis on the principles of paleontology, systematics and evolution, and on the use of fossils in stratigraphic correlation. Required field trips. Three lecture and three laboratory hours each week.

GLY 310. General Petrology (4) Prerequisite: GLY 201 or consent of instructor. A survey of the major igneous, sedimentary, and metamorphic rock groups. Emphasis is on classification, textural features, mode of occurrence, environments of origin and economic importance. Laboratory stresses rock identification and typical rock associations. Required field trips. Three lecture and three laboratory hours each week.

GLY 311. Igneous and Metamorphic Petrology (4) Prerequisite: GLY 202. Theories of genesis of the major igneous and metamorphic rocks in the light of chemistry, mineralogy, structure and texture, field associations, and experimental data. The relationship between igneous and metamorphic processes and crust-mantle tectonic activity. Required field trips. Three lecture and three laboratory hours each week.

GLY 312. Sedimentary Petrology (4) Prerequisite: GLY 202. Introduction to the identification, classification and origins of sediments and sedimentary rocks. Emphasis is placed on physical processes controlling sedimentation and study of modern and ancient depositional environments. Field trips. Three lecture and three laboratory hours each week.

GLY 391. Appalachian Geology (1) Corequisite: GLY 431 or 441. Field study of the structure, stratigraphy, rocks, and paleontology of the Paleozoic System of the Appalachian geosyncline. Introduction to sample collection, field mapping procedures, and methods of data analysis. Three field days and colloquium. Spring. (Fees)

GLY 392. Coastal Plain Geology (1) Corequisite: GLY 431. Field analysis of depositional patterns and paleontology of Cretaceous and Cenozoic units of the southeastern Atlantic Coastal Plain. Introduction to methods of litho-and biostratigraphic correlation, sampling techniques, and sample analysis. Three field days and colloquium. Fall (Fees)

GLY 393. Coastal Processes (1) Prerequisite: GLY 101. Field examination of the depositional and erosional processes and materials in the marshes, estuaries and barrier islands of the Carolinas and Georgia. Introduction to basic techniques used by coastal researchers in field measurements, sample retrieval and data analysis. Three field days and colloquium. Spring. (Fees)

GLY 394. Piedmont Geology (1) Prerequisite: GLY 102 and consent of instructor. Field examination of the petrology, degree(s) of metamorphism, and structural style(s) of the various belts of rock in the crystalline Appalachians. Observations permit regional tectonic syntheses for the Piedmont. Three days and colloquium. Fall (Fees)

GLY 431. Stratigraphy (4) Prerequisite: GLY 200 and 231. An introduction to the description, organization and classification of layered rocks. Emphasis is placed on the practical use of stratigraphic principles in elucidating earth history. Field trips. Three lecture and three laboratory hours each week.

GLY 441. Structural Geology (4) Prerequisite: GLY 200 and MAT 112 or permission of instructor. Introduction to the mechanics, fabrics, and geometry of rock deformation, including stress-strain relationships, folds and folding, and faulting and fracturing of rocks. Selected regional examples introduce the test concepts and theories of orogenic rock mechanisms and tectonics. Required field trip. Three lecture and three laboratory hours each week.

GLY 480. Advanced Topics in Geology (1-3) Prerequisite: Junior standing in department and consent of instructor. Study of selected topics in geology that are not considered in detail in regular course offerings. Examples of specific topics are plate tectonics, seismology, depositional systems, groundwater hydrology, geochronology, and advanced paleontology. Taught on demand. More than one topic may be taken for credit (maximum 6 hours.)

GLY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

GLY 495. Senior Seminar (1-3) Prerequisite: Senior standing with a concentration in geology and completion of eighteen hours in the major from courses at the 200-level and above. May be repeated one time for credit.

GLY 499. Honors Work in Geology (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairperson. Individual study for honors students.

For 292 and 492; 294 and 494, see explanation on p. 90.

ENGINEERING

(See Pre-Professional Programs for Requirements)

Engineering Course Descriptions

(Department of Earth Sciences)

EGN 111. Engineering Graphics (3) Fundamentals of drafting and use of instruments, lettering, geometric constructions, orthographic projection, auxiliaries, sections, fasteners, dimensioning, freehand sketching; axonometric, oblique, and perspective views and fundamentals of working drawings. Basic construction and topographic drafting, inking, methods of reproduction; descriptive geometry, graphical solution of spatial point, line and plane problems. One lecture and three laboratory hours each week.

EGN 211. Land Surveying (3) Prerequisite: MAT 111 or consent of instructor. The elements of plane surveying; basic instrument nomenclature, use and adjustment methods of surveying plots of land using the metes and bounds system; and introduction to the public land surveys; methods of basic surveying computation involving horizontal, vertical and angular measurements; legal aspects of surveying (legal term definitions, recording processes, federal, state and local laws and codes); basic methods of subdivision. Two hours of lecture and three hours of laboratory each week.

EGN 212. Route Surveying (3) Prerequisite: EGN 211 or consent of instructor. The elements of plane route surveying to include the operations involved in horizontally and vertically aligning roadways (highways and railroads) and the computations involved in the various operations; horizontal and vertical curves; procedures peculiar to road, canals, transmission lines, pipelines, storm and sanitary sewers, urban utility surveys, along with the incidental storm drainage design and layout for certain roadway situations. Two hours of lecture and three hours of laboratory each week.

EGN 221. Geodetic Surveying (3) Prerequisite: EGN 211. The application of many of the principles of geodesy for the purpose of transitioning from surveys on a plane to surveys on an oblate spheroid (Earth). The use of spherical trigonometry and some of the calculus in geodetic surveys; the N.C. State Plane Coordinate System; some experience in electronic distance measuring; methods of computation and field methods of triangulation, trilateration and traverse; astronomical observations and computations involved to determine latitude, longitude and azimuth (direction) from one point to another. Two hours of lecture and three hours of laboratory each week.

EGN 222. Topographic Surveying and Mapping (3) Prerequisite: EGN 211. The field and office processes necessary to prepare topographic and hydrographic maps of a specified area. The many methods of data acquisition over land and water areas are examined and practiced during the course to include: radial line surveys, x.y.z. coordinate surveys, aerial surveys and the plane table. The actual preparation of a "live" map from field survey to finished inked map is a primary part of the course. Two hours of lecture and three hours of laboratory each week.

EGN 321. Engineering Statics (3) Prerequisite: PHY 201 and corequisite: MAT 162. The study of engineering statics using vector calculus. Basic concepts, forces and equilibrium analysis, distributed forces, centroids, moments of inertia, virtual work, applications to machines, structures, and systems.

EGN 322. Engineering Dynamics (3) Prerequisite: EGN 321 and corequisite: MAT 213. The study of engineering dynamics using vector calculus. Equations of motion, kinematics, kinetics of mass points and systems of mass points, kinetics and kinematics of rigid bodies.

ENGLISH

Dr. J. Seiple, *Chairperson.* Dr. Atwill, Dr. Byington, Dr. Clifford, Dr. Collier, Dr. Corbett, Ms. Dewane-Lander, Dr. Dodson, Dr. Ellerby, Dr. Ellis, Dr. Frega, Mr. Gerard, Dr. C. Gould, Ms. K. Gould, Mr. Lander, Ms. McDonald, Dr. McKenna, Dr. MacLennan, Dr. Noland, Dr. Parish, Mrs. Pearsall, Dr. Rugoff, Dr. Schweninger, Dr. Stokes, Dr. Sullivan, Dr. Veit, Dr. Walker, Dr. Waxman, Dr. Wentworth, Mr. Zinkus.

The Department of English offers a basic preparation in literature, language, and composition, and then special concentrations in literature and language, professional and creative writing, and teacher preparation. A "C" or better grade must be achieved in each English course taken to satisfy requirements in the major.

Core requirements for a Concentration in English for the B.A. degree: ENG 211-212, 223-224, 306, 320 or 323, and an additional writing course.

Requirements for a Concentration in English for the B.A. degree with an emphasis in literature and language: The core requirements plus an additional 21 hours, consisting of a senior seminar, ENG 332 or 333, and 15 elective hours in ENG (no more than 6 of these 21 hours may be at the 200 level).

Requirements for a Concentration in English for the B.A. degree with an emphasis in professional and creative writing: The core requirements plus an additional 21 hours, consisting of 12 hours in writing courses, 6 hours in literature courses (including one senior seminar), and 3 hours in a language or additional writing course (no more than 6 of these 21 hours may be at the 200 level).

Requirements for a Concentration in English for the B.A. degree with teacher certification: Teacher Education Program requirements, the core requirements plus ENG 225 or 226, 304, 321, 380 or 381, 382, 495 (senior seminar), and 3 elective hours (300 level or above). In the core, the additional writing course must be ENG 206 and the language course must be ENG 320. Students will be urged to choose COM 105 or 116 as part of the Basic Studies requirements.

Collaterals: For each concentration, 18 hours in another discipline or disciplines selected by student and advisor to provide optimum reinforcement for the student's academic objectives.

English Course Descriptions

ENG 100. Foundations of Composition (0) Intensive writing practice and instruction for students needing preparation in the basics of composition. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

ENG 101. Composition (3) Prerequisite: Evidence of competence on the English Placement Test or a grade of "C" or better in ENG 100. An introduction to college-level composition. Extensive practice in the techniques of invention, development, organization, editing, and revision, with emphasis on narrative and expository forms appropriate to academic writing.

ENG 102. Composition (3) Prerequisite: ENG 101. College-level composition. Continued practice in the composing process, with emphasis on argumentation and research. Frequent projects in gathering, analyzing, and documenting information from outside sources.

ENG 110. Introduction to Literature (3) Study of three literary genres—poetry, drama, and short fiction—in terms of basic components and structures.

ENG 201. Intermediate College Writing (3) Prerequisite: ENG 102. Instruction in composing strategies to strengthen organizational, syntactical, and editing skills. Written projects relate to the academic interests of each student.

ENG 202. Introduction to Journalism (3) Prerequisite: ENG 102. Introduction to news values, style and writing. Focus is on writing news leads and single-incident and speech news stories under deadline pressure. Also included: note taking, interviewing and an introduction to feature writing.

ENG 203. Writing about Literature (3) Prerequisite or corequisite: ENG 102. Practice in ways to write about literature in forms ranging from personal journals to in-class responses to critical essays. Includes reading and instruction in literature.

ENG 206. Foundations of Creative Writing (3) Prerequisite: ENG 102 or consent of instructor. Instruction in creative writing aimed at developing the creative process and ways to teach that process. Includes writing exercises in poetry and fiction. Intended for majors electing the Professional and Creative Writing and Teacher Education emphases.

ENG 207. Creative Writing (Fiction) (3) Prerequisite: ENG 102 or consent of instructor. Instruction in writing fiction, including critical evaluation by instructor and class of students' original works. Students also critique and relate to their own work the fiction of relevant professional authors.

ENG 208. Creative Writing (Poetry) (3) Prerequisite: ENG 102 or consent of instructor. Instruction in writing poetry, including critical evaluation by instructor and class of students' original works. Students also critique and relate to their own work the poetry of relevant professional poets.

ENG 209. (CLA 209) Greek and Roman Literature in Translation (3) Prerequisite: ENG 102. Major authors of ancient Greece and Rome. Emphasis on ancient literature in its social context and on classical themes in later literatures.

ENG 210. (CLA 210) Mythology (3) Prerequisite: ENG 102. The major mythological systems of Western society—Greek, Roman, and Norse. Mythology of other parts of the world, especially the Ancient Middle East, and related material are also considered.

ENG 211, 212. Great British Writers I & II (3,3) Prerequisite or corequisite: ENG 102. 211: Writings before 1800; 212: Writings since 1800.

ENG 219. General Fiction (3) Prerequisite: ENG 102. A thematic approach to fiction for students who enjoy extensive readings of current novels.

ENG 220. Introduction to the English Language (3) Prerequisite: ENG 102. A nontechnical introduction to the structure, history, and contemporary use of the English language. Provides a thorough background in English grammar.

ENG 223, 224. American Literature I & II (3,3) Prerequisite or corequisite: ENG 102. 223: The literature of colonial and early America (1607-1820) and of the Romantic era (1820-1855). 224: The literature of American Realism (1855-1900) and the twentieth century (1900-1960).

ENG 225, 226. World Literature I & II (3,3) Prerequisite or corequisite : ENG 102. Representative works of world literature (excluding British and American authors) emphasizing, but not limited to, the Western literary tradition. 225: Work from ancient times to about 1500; 226: 1500 to the twentieth century.

ENG 230. Women in Literature (3) Prerequisite or corequisite: ENG 102. Twentieth century literature by and about women. Focuses on changes in images and roles of women. Includes fiction, poetry, and essays.

ENG 232. Black American Writers (3) Prerequisite or corequisite: ENG 102. Study of representative literature written by Black Americans from slavery to the present, including writers such as Wheatly, Douglass, Hughes, Wright, Ellison, and Walker.

ENG 233. The Bible as Literature (3) Prerequisite or corequisite: ENG 102. Study of types of Biblical literature, including narratives from the Old and New Testaments, sermons, parables, and poetry. Attention is given to the Bible as literature in itself and as a source of symbols and allusions in Western culture.

ENG 235. Literature and Film (3) Prerequisite or corequisite: ENG 102. Study of selected literary works that have been transformed into films. Consideration is given to each work in its original literary form as well as to the changes it has undergone in cinematic adaptation. Works treated may vary from semester to semester.

ENG 240. The Supernatural in Literature (3) Prerequisite or corequisite: ENG 102. Types of supernatural phenomena in literature, including psychic experiences, the occult, ghosts, werewolves, and vampires. Emphasis on British and American fiction of the nineteenth and twentieth centuries, from Mary Shelley to Stephen King.

ENG 241. Detective Fiction (3) Prerequisite or corequisite: ENG 102. Major writers of detective fiction from Poe to the present. Development of the mystery form and the evolution of the detective as hero in British and American literature.

ENG 242. Science Fiction (3) Prerequisite or corequisite: ENG 102. Study of special conventions that distinguish science fiction from other types of literature (such as fantasy). Considers the contribution of science fiction to the understanding of such current concerns as overpopulation, biological change, automation, and the threat of nuclear war. Works by such authors as Wells, Asimov, Heinlein, Clarke, Bester, and LeGuin.

ENG 243. Fantasy Literature (3) Prerequisite or corequisite: ENG 102. Study of nonrational phenomena in literature and of the relationship of fantasy to reality. Considers phenomena such as magic and other-worldly creatures in settings that distinguish fantasy from other types of literature, such as science fiction.

ENG 244. Literature of the Sea (3) Prerequisite or corequisite: ENG 102. Study of nautical literature, focusing on varying perceptions of the sea; major themes in nautical literature; uses of the sea as setting, symbol, and metaphor.

ENG 250. Introduction to Folklore (3) Prerequisite or corequisite: ENG 102. A definition and survey of the most common forms of folklore, including folk speech, narratives, music, art, customs, and beliefs, with an emphasis on the relevance of these materials to the study of literature, history, education, art, the social sciences, and other disciplines.

ENG 290. Themes in Literature (3) Prerequisite or corequisite: ENG 102. An interdisciplinary study of a significant theme, such as war and peace, justice, love, youth and age, focusing primarily on literary works but also drawing on sources from other fields, including art, music, and history. May be repeated once under a different subtitle.

ENG 300. Introduction to Technical Writing (3) Prerequisite: ENG 102. Types of writing encountered in professions: resumes, memos, correspondence, proposals, progress reports, technical reports, and oral presentations of technical reports; emphasis on style, form, and organization; adaptable to the student's major field of study.

ENG 301. Technical Report Writing (3) Prerequisite: ENG 300 or consent of instructor. Theory and practice of technical writing. Emphasis on mid-sized and longer reports, including proposals and feasibility studies, journal articles, professional papers, research studies, and oral presentation of technical reports; adaptable to the student's major field of study.

ENG 302. Journalism Workshop (3) Prerequisite: ENG 202 or consent of instructor. Continuation of ENG 202. Focus is on gathering news from various community and campus sources and writing in news style under deadline pressure. Also included: some attention to feature and editorial writing.

ENG 304. Writing for Teachers (3) Prerequisite: ENG 102. Instruction in writing for teachers of all school subjects (K-12). Forms of exposition and persuasion appropriate to teachers; consideration given to learning and composition theory, the composing process, theories of rhetoric, evaluation, writing development. This course is designed for prospective teachers.

ENG 306. Essay Writing (3) Prerequisite: ENG 102. Instruction in all major essay modes: narration, description, exposition, critical analysis, and persuasion. Emphasis on mastering prewriting, writing, and revision strategies; attention to developing individual style. Appropriate for students in all majors.

ENG 307. Advanced Creative Writing: Fiction (3) Prerequisite: ENG 207 or consent of instructor. Instruction in advanced techniques of writing fiction. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication.

ENG 308. Advanced Creative Writing: Poetry (3) Prerequisite: ENG 208 or consent of instructor. Instruction in advanced techniques of writing poetry. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication.

ENG 310. Theory and Practice of Editing (3) Prerequisite: ENG 102. An advanced writing course, focusing on revising, editing, and copy editing. Techniques and strategies for getting prose ready for publication will be explored. Extensive practice in editing professional and student samples.

ENG 311. Professional Magazine Writing (3). Prerequisite: ENG 202 or consent of instructor. Writing of nonfiction prose intended for publication in newspapers, magazines, and journals.

ENG 315. Special Topics in Writing (3) Prerequisite: ENG 102. A focused study of a particular subject in composition/rhetoric. Topics may vary from semester to semester, and may include classical or medieval rhetoric; the study of style; the writing of grants; the rhetoric of visualization, art, music, or photography; the analysis of propaganda and advertisements; or theories of writing.

ENG 320. Introduction to Linguistics (3) Prerequisite: ENG 102. Important topics in the study of language, including phonological, syntactic, and semantic systems; language change; language acquisition by children; theories of language origin; and animal "language."

ENG 321. Structure of the English Language (3) Prerequisite: ENG 102. Study of the grammatical structure of the English language and the process by which we create and comprehend English sentences. Emphasis on recent syntactic models.

ENG 322. General Semantics (3) Prerequisite: ENG 102. The study of language as it affects our thinking and behavior; language and prejudice; the language of advertising, propaganda, science, and poetry; slanting, euphemisms, jargon, connotations, and abstraction.

ENG 323. History of the English Language (3) Prerequisite: ENG 102. The development of the English language from Old English to the present; changes in sounds, vocabulary, syntax, meaning, and spelling; formation of American dialects.

ENG 332. Shakespeare I (3) Prerequisite: ENG 102. Study of eight to ten plays written before 1600 and selected sonnets. Included are tragedies, comedies, and histories.

ENG 333. Shakespeare II (3) Prerequisite: ENG 102. A study of eight to ten plays written after 1600. Included are tragedies, comedies, and histories.

ENG 335. Restoration and Eighteenth-Century Literature (3) Prerequisite: ENG 102. Major writers and types of literature between 1600 and 1800. Includes works by Dryden, Swift, and Pope, as well as examples of the periodical essay, early novel, and drama.

ENG 336. British Romanticism (3) Prerequisite: ENG 102. Selected poetry and prose of the Romantic period, 1783-1837. Emphasis on developments in poetry, the role of the artist, and Romantic critical theory. Includes such writers as Blake, Byron, Wordsworth, Coleridge, Keats, Shelley, Austen, and Scott.

ENG 337. Victorian Literature (3) Prerequisite: ENG 102. English literature from 1832 to 1901. Cultural upheavals as reflected in poetry and prose by such authors as Tennyson, Browning, Arnold, Pater and the Pre-Raphaelites, Dickens, George Eliot, and Thackeray.

ENG 338. British Literature 1900-1950 (3) Prerequisite: ENG 102. Study of a broad range of writings from the first half of the twentieth century. Includes works by British authors such as Conrad, Lawrence, Joyce, Woolf, Yeats, Shaw, and Auden.

ENG 350. American Romanticism (3) Prerequisite: ENG 102. Major writers in the American Renaissance, from 1820 to the Civil War, including Whitman, Emerson, Thoreau, Poe, Hawthorne, and Melville.

ENG 351. American Realism (3) Prerequisite: ENG 102. Major writers in the period of emerging industrialism and urbanization after the Civil War, including Dickinson, Twain, James, Crane, and Dreiser.

ENG 352. American Literature 1900-1950 (3) Prerequisite: ENG 102. Study of a broad range of writings from the first half of the twentieth century. Includes works by American authors such as Eliot, Pound, Stevens, O'Neill, Hemingway, Fitzgerald, Porter, and Faulkner.

ENG 353. Southern American Literature (3) Prerequisite: ENG 102. Study of nineteenth- and twentieth-century Southern literature, ranging from southwestern humor sketches written before the Civil War to recent literature by such authors as Welty, O'Connor, Faulkner, Ellison, Percy, and Williams.

ENG 354. North Carolina Writers (3) Prerequisite: ENG 102. Short stories, novels, and poetry by North Carolina writers. Several works reflect upon the life and time of the state. Includes such writers as Charles Chesnutt, O. Henry, Thomas Wolfe, Randall Jarrell, and Gail Godwin.

ENG 355. Ethnic Literature of the United States (3) Prerequisite: ENG 102. Literature of various American ethnic groups, with emphasis on Afro-American, Jewish American, Native American, Hispanic American, and Asian American literature.

ENG 361. Studies in the Short Story (3) Prerequisite: ENG 102. Types of the short story, with emphasis on the features and development of the genre. Works from a variety of periods, authors, and traditions.

ENG 362. Studies in the Novel (3) Prerequisite: ENG 102. Types of the novel, with emphasis on the features and development of the genre. Works from a variety of periods, authors, and traditions.

ENG 364. Studies in Poetry (3) Prerequisite: ENG 102. Major types of poetry, with emphasis on their form, style, and interpretation. Poems from a variety of periods, authors, and traditions.

ENG 365. Studies in Drama (3) Prerequisite: ENG 102. A variety of plays representing tragedy, comedy, and modern forms. Works from a variety of periods, authors, and traditions with some attention to dramatic criticism.

ENG 371. European Literature 1900-1950 (3) Prerequisite: ENG 102. Study of a broad range of writings from the first half of the twentieth century. Includes Continental authors such as Kafka, Hesse, Camus, Rilke, Brecht, Akhamatova, and Pasternak.

ENG 372. Contemporary Literature (3) Prerequisite: ENG 102. Literature since 1950. Includes such movements and themes as confessional and beat poetry, theater of the absurd, alienation, pop culture, and experimentation.

ENG 373. The Female Tradition in Literature (3) Prerequisite: ENG 102. Study of literary works by nineteenth-century women. Examines evolving women's literary criticism and distinctly female uses of language in literature.

ENG 374, 375. Twentieth-Century American & British Poetry I, II (3,3) Prerequisite: ENG 102. 374: Pre-WWII poets including Hopkins, Yeats, Pound, Eliot, Frost, and Stevens. Trends in modern poetry are considered. 375: Post-WWII poets including Roethke, Lowell, Giovanni, Plath, Hughes, and Hill. Trends in post-modern poetry are considered.

ENG 380. Literature for Children (3) Prerequisite: ENG 102. Exploration of children's books in several genres. Intended for present and future parents and teachers of grades 4-9. Although this course is designed primarily for prospective teachers, all majors are welcome.

ENG 381. Literature for Young Adults (3) Prerequisite: ENG 102. An exploration of various genres appropriate for high school students. Intended for present and future parents and teachers of adolescents. Although this course is designed primarily for prospective teachers, all majors are welcome.

ENG 382. Varieties of Literary Response (3) Prerequisite: ENG 102. A range of written and oral responses to poetry, fiction, and drama. Student participation in such approaches as role-playing, collaborative problem-solving, dramatization, visualization, and parody. This course is designed for prospective teachers.

ENG 430. (504) The Age of Chaucer (3) Prerequisite: ENG 211 and junior or senior standing. A survey of works written in medieval England. Included are *The Canterbury Tales,* selections from Chaucer's other works, and representative works in such genres as chronicle, biography, epic, romance, dream vision, and drama.

ENG 431. (505) The Age of Elizabeth (3) Prerequisite: ENG 211 and junior or senior standing. English literature in the sixteenth and early seventeenth centuries. Works studied include poetry by Spenser and Shakespeare, plays by Marlowe and Jonson, and prose by More and Sidney.

ENG 432. (506) The Age of Milton (3) Prerequisite: ENG 211 and junior or senior standing. Emphasis on the works of Milton. Also includes works by Donne, Herbert, and Bacon.

ENG 462. (507) Studies in the Novella (3) Prerequisite: Junior or senior standing and three hours of literature at the 300-400 level. Types of novella or short novel, with emphasis on its distinctive features and development as a genre. Works from a variety of periods, authors, and traditions.

ENG 463. (508) Studies in Non-Fiction (3) Prerequisite: Junior or senior standing and three hours of literature at the 300-400 level. Types of non-fiction prose, including biography, autobiography, memoirs, journals, and various essay forms. Works from a variety of periods, authors, and traditions.

ENG 490. (509) Special Topics in Literature (3) Prerequisite: Junior or senior standing and three hours of literature at the 300-400 level. The study of a selected theme, movement, period, influence, or genre. Content varies from semester to semester. May be repeated once under a different subtitle.

ENG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

ENG 495. Seminar (1-3) Prerequisite: Junior or senior standing or consent of department chairperson. Intensive study of a topic in literature, language, or writing. Emphasis on individualized work, which may include reports, a longer research project, and appropriate bibliography assignments. Classes limited to fifteen. Required of English majors in the junior or senior year. May be repeated once under a different subtitle.

ENG 498. Internship in Writing (3-6) Prerequisite: ENG 300. Academic training and practical writing experience through work in a private company or public agency in the three-county area in and around Wilmington. Faculty supervision and evaluation of all study and on-site activity. Open to students of junior or senior standing in all majors who have been approved by the faculty internship advisor.

ENG 499. Honors Work in English (2-3) Prerequisite: Eligibility for honors program. Independent study for honors students.

For 292 and 492, see explanation on p. 90.

ENVIRONMENTAL STUDIES

(Interdepartmental)

Dr. Webster, *Coordinator*. Participating disciplines: Anthropology, Biology, Chemistry, Earth Sciences, Economics, Mathematics, Physics, Political Science, Psychology, and Sociology.

Requirements for a Concentration in Environmental Studies for the B.A. degree:
Core: BIO 110-111, CHM 101-102, GLY 101-102, EVS 195, 495.

Specialization: A disciplinary concentration must be chosen from the approved list of courses in one of the following: biological sciences, chemistry, earth sciences, or environmental sciences.

Approved courses for each discipline are listed below. A "C" or better average on courses in the area of specialization is required.

Biological Sciences: BIO 205, 206, 366, 425, 356 or 452 or 456, 472 or 475, 478; Collateral requirement: CHM 277; Collateral electives: (6 hours from the following) GGY 335, ECN 325, PLS 304, PSY 370, STT 215; Additional recommended courses: BIO 460, CHM 235, 476, GGY 130, 230, 270..

Chemistry: CHM 211-212, 225, 235, 277, 325 or 321, 476; Chemistry elective (7 hours from the following): CHM 315-316, 435, 445, 465, 475, 485; Collateral electives (7 hours from the following): GGY 335, ECN 325, PLS 304, PSY 370, STT 215; Additional recommended courses BIO 366, 478, GGY 130, 230, 270.

Earth Sciences: GGY 220, 230, 322, 325, 335, GLY 200, 201, 310, 431, 441; Collateral electives (6 hours from the following): ECN 325, PLS 304, PSY 370; Additional recommended courses: BIO 366, 478, CHM 235, 277, 476, GGY 270.

Environmental Sciences: BIO 366, CHM 277, GGY 335, STT 215; Environmental Sciences electives (15 hours, 10 of which must be from course numbers above 299, from at least 2 of the following 3 disciplines): (1) Biology: BIO 356, 425, 460, 475, 478 (2) Chemistry: CHM 211-212, 235, 325 or 321, 435, 445, 465, 475, 476, 485 (3) Earth Science: GGY 220, 230, 270, 322, 325, GLY 200, 441; Collateral electives (6 hours from the following): ECN 325, PLS 304, PSY 370.

Environmental Studies Course Descriptions

(Interdepartmental)

EVS 120. (GLY 120) Environmental Geology (3) Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities.

EVS 195. Introduction to Environmental Studies (3) Interdisciplinary introduction to the scope and application of environmental studies. Emphasis will be placed on an integrated analysis of environmental principles and discussions centering on current environmental problems.

EVS 316. (SOC 316) Human Ecology (3) Prerequisite: SOC 105 and three additional hours in sociology above the introductory level. A theory of community structure based on social evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and related configuration of human communities.

EVS 325. (ECN 325) Environmental Economics (3) Prerequisite: ECN 125 or 221 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternative involving economic incentives.

EVS 370. (PSY 370) Environmental Psychology (3) Prerequisite: PSY 105. The study of the effects of the physical environment on the behavior effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment.

EVS 485. Special Topics in Advanced Environmental Science (1-6) Prerequisite: Junior or senior standing and EVS 195 or consent of instructor. Selected topics in environmental science not covered in detail in regular course offerings. May be repeated for a maximum of six semester hours.

EVS 490. Senior Project (1-6) Prerequisite: Senior standing and permission of instructor. A research project and seminar under the supervision of a committee of environmental studies faculty. The project should involve the investigation of a current problem in the Environmental Studies field, and the preparation of a written report on the findings.

EVS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of the environmental studies coordinator.

EVS 495. Seminar in Environmental Studies (3) Prerequisite: Senior standing. Synthetic approach to the study of environmental science. Development of the "holistic" view of the environment, its interrelationship with science, technology, and society in a seminar format. Involves a work experience with an agency or organization in the area of environmental science.

EVS 499. Honors Work in Environmental Studies (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492; 294 and 494, explanation on p. 90.

COMPUTER SCIENCE

(See Mathematical Sciences)

FINE ARTS

Dr. Myers, *Chairperson*

The Department of Fine Arts is comprised of divisions of Art, Drama and Music. The department offers concentrations leading to B.A. degrees in art, drama, and music.

FNA 110 Introduction to the Arts (3) An inter-and multi-disciplinary introduction to the arts, aesthetic perception and response, and the relationship of the arts to individuals and society - past and present. Treats visual art, music, theatre, dance, film and architecture.

FNA 112. Introduction to Dance (3) Appreciation of dance as an art form. The study of dance as a reflection and expression of various cultures from pre-history to present. Includes exposure to contemporary concert dance through films and televised or live performance. Introductory experience in selected dance techniques. Two class hours and two laboratory hours each week.

FNA 136. (PED 136) Movement Exploration (3) Study through creative dance techniques of the body's potential as a tool for creative expression. Exploration of the relationship of dance to other art forms. Solo and group work using basic art concepts and the individual's own experience as materials for movement improvisation and composition. No dance training necessary.

ART

Ms. Conner, Mr. Furst, Mr. LeQuire, Dr. Myers.

Requirements for a Concentration in Art for the B.A. degree: Students may emphasize either Studio Art or Art History. Core courses common to either emphasis: ART 101, 102; either 111 or 112; three hours chosen from MUS 261 or 262; three hours chosen from DRA 361, 362 or 363.

Studio Art: In addition to the core requirements the art history major will be required to complete six hours chosen from ART 201, 202 or 204; six hours chosen from practical and theoretical courses in drama or music (histories not included); three hours of 300-400 level art history; 27 hours chosen from at least three studio areas. Electives chosen in consultation with the advisor.

Art History: In addition to the core requirements the studio major will be required to complete six hours chosen from courses in two different studio areas; ART 201, 202, 204; six hours of foreign language; nine hours of 300-400 level history to be chosen in consultation with the advisor; 18 hours of 300-400 level art history. Electives to be chosen in consultation with the advisor.

A "C" or better grade in all courses taken to meet the Fine Arts degree requirements.

Art Course Descriptions

(Department of Fine Arts)

ART 101, 102. Design (3-3) 101: Study of the principles of two-dimensional design and introduction to color theory. **102:** Study of the concepts of three-dimensional design and of the nature of problem solving. One lecture and six studio hours each week.

ART 111, 112. Drawing Fundamentals (3-3) Fundamentals of drawing using various media: charcoal, pencil, ink, etc. Four studio hours each week.

ART 201. Ancient World Through Medieval Period (3) A survey of art from ancient through medieval with an emphasis on major artistic developments in their historical and cultural context from 20,000 B.C. to 1400 A.D.

ART 202. Renaissance Through Contemporary Art (3) A survey of art from the Renaissance to the present with an emphasis on major artistic developments in their historical and cultural context from 100 A.D.

ART 204. Survey of American Art (3) A survey of American art from Colonial times to the present, with an emphasis on major examples of architecture, painting, sculpture, graphics and the decorative arts.

ART 211. Beginning Life Drawing (3) Prerequisite: ART 111 or 112 with permission of instructor. Drawing from the model: structure, geometric form, and composition using various media: pencil, charcoal, india ink, etc. Six hours per week.

ART 212. Beginning Life Drawing (3) Prerequisite: ART 111 or 112 with permission of instructor. Drawing from the model: structure, anatomy and composition using various media: pencil, charcoal, india ink, etc. Six studio hours per week.

ART 221, 222. Beginning Ceramics (3-3) Introduction to pottery form and design in the manipulation of clays and glazes; basic techniques and approaches. One lecture and six studio hours each week.

ART 231, 232. Beginning Printmaking (3-3) Prerequisite: ART 101 or 111 or 112 or permission of instructor. Problems in relief and intaglio using a variety of materials. May be taken in any sequence. Six studio hours each week.

ART 241, 242. Beginning Painting (3-3) A beginning course investigating a variety of media, techniques, and subjects. Six studio hours each week.

ART 251, 252. Beginning Sculpture (3-3) Prerequisite: ART 102 or consent of instructor. Three-dimensional form in clay and plaster; basics of modeling and casting abstract and life forms. One lecture and six studio hours each week.

ART 306. Italian Renaissance Art (3) Prerequisite: ART 201, 202 or permission of instructor. A study of the development of art in Italy, 1200-1600 A.D., with an emphasis on painting, sculpture, architecture and graphics as related to Renaissance culture.

ART 307. History of Printmaking (3) Survey of printed pictures from the 15th Century to the present. An appreciation of the evolution of printmaking from its practical applications to fine art, including major artists as printmakers. Studio as experience optional.

ART 308. 20th Century Art (3) Prerequisite: ART 201, 202, 204, or permission of instructor. A study of movements and issues in art from 1900 to the present in Europe and the United States with an emphasis on developments as they contribute to contemporary art. Painting, sculpture, architecture, graphics and other vehicles of artistic expression will be discussed as the relate to these developments.

ART 311. Intermediate Life Drawing (3) Prerequisite: ART 211, 212 or permission of instructor. Drawing from the model: structure, composition, development of personal expression. Six studio hours per week.

ART 312. Intermediate Life Drawing (3) Prerequisite: ART 211, 212, or permission of instructor. Drawing from the model: structure, anatomy, development of personal expression. Six studio hours per week.

ART 321, 322. Intermediate Ceramics (3-3) Prerequisite: ART 221, 222, or consent of instructor. Further exploration of three-dimensional forms and design in manipulation of clay and glazes; basics of kiln construction and chemistry of glazes. One lecture and six studio hours each week.

ART 331, 332. Intermediate Printmaking (3-3) Prerequisite: ART 231, 232 or permission of instructor. Further exploration of painting techniques in relief, intaglio, silkscreen. May be taken in any sequence. Six studio hours each week.

ART 341, 342. Intermediate Painting (3-3) Prerequisite: ART 101, 242 or consent of instructor. Further exploration of printing techniques and expression. Six studio hours each week.

ART 351, 352. Intermediate Sculpture (3-3) Prerequisite: ART 251, 252, or consent of instructor. Three-dimensional form in plaster, ceramics and metals. One lecture and six studio hours each week.

ART 387. (ANT 387) Museum Studies (3) Prerequisite: Permission of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition and education.

ARTL 387-51. (ANTL 387-51) Museum Studies Practicum (1) Corequisite: ART 387 (ANT 387). Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ART 411. Advanced Life Drawing (3) Prerequisite: ART 311, 312 or permission of instructor. Drawing from the model: drawing as a finished product, exploration of drawing techniques. Six studio hours per week.

ART 412. Advanced Drawing (3) Prerequisite: ART 411 or permission of instructor. Drawing as finished product, exploration of drawing techniques. Six studio hours per week.

ART 421, 422. Advanced Ceramics (3-3) Prerequisite: ART 321, 322, or consent of instructor. Advanced study of pottery form and design with emphasis on kiln construction and theory; physical and chemical properties of clays and glazes including the empirical method of glaze calculation. One lecture and six studio hours each week.

ART 431, 432. Advanced printmaking (3-3) Prerequisite: ART 331 and 332 or permission of instructor. Further exploration of printmaking techniques in relief, intaglio, silkscreen and collograph. May be taken in any sequence. Six hours each week.

ART 441, 442. Advanced Painting (3-3) Prerequisite: ART 342 or consent of instructor. Emphasis on techniques and expression. Six studio hours each week.

ART 451, 452. Advanced Sculpture (3-3) Prerequisite: ART 351, 352, or consent of instructor. Continuation of study of form with emphasis on casting and welding of metals. One lecture and six studio hours each week.

ART 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

ART 495. Seminar in Art (1-3). Prerequisite: Junior standing. Consideration of special subjects not covered in detail in regular course offerings. More than one topic may be taken for credit.

For 292 and 492; 294 and 494 see explanation on p. 90.

DRAMA

Ms. Bratton, Mr. Hawley, Mr. Macie, Dr. Norman, Dr. Rogers, Mr. Swink, Dr. Theodore.

Requirements for Concentration in Drama for the B.A. degree: DRA 201, 205, 130 or 231, 307; six credits from DRA 321 or 322 or 323; three credits from ART 101 or 102 or 201 or 202, or 204; three credits from MUS 105 or 115; nine credit of electives in creative arts outside of drama. An option comprising one of the following also must be fulfilled. Option 1 (Acting): DRA 206, 232 (4 credits), 333 (4 credits), 355, and COM 230. Option 2 (Directing): DRA 232 (4 credits), 306,355, 455, 461, or 462. Option 3 (Design/Technical): DRA 202, 206, 305, 306, 405, 406. Option 4 (History and Theory): DRA 321 or 322 or 323; 345, 355, 461, 462. A "C" or better grade in all courses taken to meet the creative arts degree requirements.

Drama Course Descriptions

(Department of Fine Arts)

DRA 130. Improvisation (3) Exploration of spontaneous dramatic playing through intensive exercises and theatre games meant to generate greater individual freedom and self-discipline, as well as to employ improvisation techniques in acting to develop characterization, stage movement, and ensemble performance.

DRA 135. (PED 102) Dance Techniques (1) Basic dance technique on a beginner level, including ballet, jazz, and modern dance.

DRA 201. Technical Production I (3) Basic principles of scenic material and equipment. Use of material, methods of construction, and handling of scenery and properties. One lecture and six laboratory hours per week. Participation in University Theatre productions required.

DRA 202. Technical Production II (3) Prerequisite: DRA 201 or consent of instructor. Practical training in shop organization and technical production, plus basic principles of theatrical graphics. Two lecture and four laboratory hours each week. Participation in University Theatre productions required.

DRA 205. Stage Make-up (2) Theory and practice in the application of make-up for theatrical performances. Four laboratory hours each week.

DRA 206. Costume History and Construction (3) An examination of major historical costume styles. The student also will learn basic costume construction techniques, applying those techniques to individual projects as well as to the costumes for departmental productions. Two lecture hours and three laboratory hours per week.

DRA 221. Introduction to the Theatre (3) Appreciation of theatre through an understanding of its artistic elements, history, dramatic literature, and audience involvement.

DRA 225. History and Appreciation of Film (3) A survey through film of the development of motion picture from its primitive beginnings to the advent of sound film. A visual illustration of the basic aesthetic principles controlling film as art.

DRA 231. Acting I (4) Prerequisite: Permission of instructor. Use of body and voice as instruments of expression; development of acting exercise structure with mind and breathing control practiced. Three class hours and two and one-half laboratory hours each week.

DRA 232. Acting II (4) Prerequisite: Acting I or permission of instructor. Continuing and expanding work on the use of body and voice. Further development of acting exercise structure with emphasis on improvisation and one scene study. Three class hours and two and one-half laboratory hours each week.

DRA 235. Dance Technique II (1) Prerequisite: DRA 135 or equivalent and consent of instructor. Basic dance technique on an intermediate level.

DRA 305. Scenic Design (3) Prerequisite: DRA 202 or consent of instructor. Play interpretation through the scenic elements. Problems in theatre graphics, techniques application, script interpretation, scenic design and style. Two class hours and two laboratory hours each week.

DRA 306. Stage Lighting (3) Prerequisite: DRA 202 or consent of instructor. Basic techniques of theatrical lighting. Includes fundamentals of electricity, lighting equipment, the use of color, and the basic principles of design. Two lecture and two laboratory hours each week. Participation in University Theatre productions required.

DRA 307. Theatre Management (3) Course focuses on various aspects of management: publicity, business management, public relations, and house management.

DRA 321, 322, 323. Theatre History (3,3,3) 321: Pre-Greek beginnings to seventeenth century. 322: Seventeenth century to nineteenth century. 323: Late nineteenth century to the present day.

DRA 333. Acting III (1-4) Prerequisite: Acting I and II or consent of instructor. Scene study. A contractual course with individual student commitment concerning the number of scene studies to be attempted. Can be taken for up to four hours accumulative maximum.

DRA 345 Playwriting I (3) Analysis of one-act plays and their construction; the writing of an original one-act play required.

DRA 355. Directing I (3) Fundamental principles of directing with emphasis on one-act productions.

DRA 405. Scenic Design II (3) Prerequisite: DRA 305 or consent of instructor. An advanced approach to historical styles and special design problems, including the relationship of architecture to the mise en scene.

DRA 406. Costume Design (3) Application of the principles of theatrical design to stage costuming.

DRA 425. Aesthetics of Film (3) A study of the various forms and content of film as controlled by the film director. The theoretical aspects of film as a work of art. Two class hours and two laboratory hours each week.

DRA 444. Acting IV: Historical Styles (3) Prerequisite: DRA 333 and/or permission of instructor. Intensive study of acting styles from classical antiquity to the eighteenth century. Students will perform scenes from the major periods.

DRA 445. Playwriting II (3) Prerequisite: DRA 345 or permission of instructor. Advanced techniques of playwriting with emphasis on full length play; the writing of an original full length play.

DRA 455. Directing II (3) Prerequisite: DRA 355. Advanced techniques in the direction of plays for the stage.

DRA 461, 462. Seminar in Dramatic Theory (3-3) Prerequisite: Senior standing or consent of instructor. Growth and results of dramatic theory on theatre. 461: Aristotle to Romantic Period. 462: Ibsen to the present.

DRA 485. Senior Project (3) Every major may choose an area in drama for a senior project. The proposal for planning and executing a public presentation in the chosen area must be submitted to the faculty of the Department of Fine Arts for approval prior to the semester during which the project will be attempted.

DRA 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

DRA 495. Theatre Seminars (1-3)

DRA 499. Honors Work in Drama (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492; 294 and 494 see explanation on p. 90.

MUSIC

Dr. Bongiorno, Dr Deas, Dr. Errante, Dr. Hickman, Dr. Martin, Mr. McLamb, Mr. Nathanson, Mr. Scott, Ms. White.

Requirements for a Concentration in Music for the B.A. degree: Students may emphasize General Music, Performance, or Music Education. Core courses, common to either emphasis: MUS 101, 102, 201, 202, 261, 262.

General Music: In addition to the core requirements the general music student will be required to complete three hours of art history (ART 201 or 202) plus three hours of introduction to theatre (DRA 221); 10 hours of applied music in the principle area, at least two hours at the 300 level; four hours of applied music in a second area; six hours of major ensemble (keyboard students may substitute up to two hours of 082 and/or 131): nine hours of music electives; and recital (at least twenty minutes) or thesis.

Performance: In addition to the core requirements, the student who emphasizes performance must complete an additional five hours of music theory (MUS 301, 302, 303); 22 hours of applied music in the principle area (at least 12 hours at the 300 level); eight hours of major ensemble (three of these hours can be counted toward basic studies requirements); two recitals (the junior recital is normally a half recital); three hours from ART 201, 202, or DRA 221, (also to be counted toward basic studies requirements); and 21 hours of music electives chosen according to the following emphasis:

(1) Vocal Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 271, 272, 273, 274, 379, and eight hours of free electives.

(2) Keyboard Performance: Six hours of secondary applied music (not to include class piano); MUS 285, 275, or 276; 375 or 376; and six hours of free music electives.

(3) Keyboard Performance with Pedagogy: Three hours of secondary applied music (not to include class piano), MUS 285, 275, 276, 375, 376, two semesters of 475, and three hours of free music electives. Also, the major ensemble requirement stated above is reduced to six hours (three to be counted toward basic studies requirements) of which only two hours can be substituted by 082 or 131.

(4) Instrumental Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 371, and 12 hours of free music electives.

A "C" or better grade must be achieved in all courses taken to meet the music degree requirements. All music majors must pass the piano proficiency exam and the listening exams. All non-keyboard students who do not pass the piano proficiency examination upon entering the music program are required to enroll in the appropriate section of class piano every semester until the exam is successfully completed. All keyboard majors are required to take the piano proficiency every semester until it is passed.

Music education majors whose major instrument is voice must pass the guitar proficiency (or MUS 143). Music education majors whose major applied area is instrumental must pass the voice proficiency examination (or MUS 146). All proficiency examinations and listening examinations must be passed prior to admission to upper division applied music and to the teacher education program.

Admission to the music program requires an audition, interview, and theory placement test.

Music Education: In addition to the core requirements, the student who emphasizes music education must complete 14 hours (7 semesters) of applied music in his/her major instrument, with not less than 6 hours (3 semesters) at the 300 level. It should be noted that music teacher certification in North Carolina is competency-based, and, accordingly, admission to the 300 level of applied music study and piano proficiency are pre-requisite to formal admission process in the teacher education program (at the end of the fourth semester of study). Other requirements for admission to the teacher education program may be seen in the catalog under School of Education.

Each student in the music education program is required to be in at least one music ensemble during each semester that he/she is in residence.

Other required courses for the music education program are:

Music Methods
MUS 243 Class Strings 1
MUS 245 Woodwind Methods 1
MUS 247 Brass Methods 1
MUS 249 Percussion Methods 1
MUS 326, 327 Music Education 2, 2
MUS 373 or 377 Instrumental or Choral Methods 2

Other Music Courses
MUS 285, 485 Conducting 3, 2
MUS 306 Orchestration and Arranging 2
MUS Electives 2

School of Education Requirements

Pre-professional Studies
PSY 223 Lifespan Human Dev. 3
EDN 200 Teacher, School and Society 3
EDN 203 School Learning 2

Professional Studies
EDN 301 Instructional Design 3
EDN 304 Classroom Evaluation and Research 3
EDN 356 Reading in the Secondary School 3
The Professional Semester
EDN 409* Practicum 12

* Music Education majors are not required to take Education 408 during the professional semester.

Music Course Descriptions

(Department of Fine Arts)

MUS 082. Accompanying (1) Prerequisite: Consent of instructor. Accumulative credit limited to eight semester hours. Students will be assigned an instrumentalist or vocalist with whom to work. One hourly class meeting per week, plus accompanying for lesson of soloist and adequate rehearsal time with soloist per week to prepare for the lesson of the soloist.

MUS 083. UNCW Chamber Singers (1) Select group drawn from the concert choir (186) by audition. Group studies the gamut of works from chamber works to secular and popular music. Two hourly rehearsal per week. Accumulative credit limited to eight semesters hours.

MUS 084. Jazz Ensemble (1) Prerequisite: Consent of instructor. The study and performance of jazz techniques and interpretation of popular styles in large and/or small ensemble. Open to any student who has had instrumental experience. Participation is determined by audition at the beginning of each semester. One two-hour rehearsal per week. Accumulative credit limited to eight semester hours.

MUS 101. Theory I (3) Prerequisite: Placement test. Corequisite: MUSL 101-51. An in-depth study of the basic material of music, including the physic of sound, time classification, notation of pitch and rhythm, intervals, scales and modes, key signatures and triads.

MUSL 101-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: MUS 101. Includes melodic, harmonic and rhythmic dictation, singing and performing of the keyboard materials introduced in MUS 101-01. Two hours per week.

MUS 102. Theory I (3) Prerequisite: MUS 101. Corequisite: MUSL 102-51. A study of tonality, triads in inversions, phrase structure and cadences, harmonic progression, the technique of harmonization and nonharmonic tones.

MUSL 102-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: MUS 102. Application through dictation, sight-singing and keyboard exercises using the materials introduced in MUS 102-01. Two hours per week.

MUS 105. Rudiments of Music (3) A general survey of the basic materials of music, including the study of musical rudiments, listening experiences, sight-singing, keyboard, and other related activities. The course is designed for elementary education students, public school teacher recertification, music students who wish to prepare for MUS 101, and for students who wish to increase their knowledge of music.

MUS 115. Survey of Music Literature (3) Designed to increase the student's knowledge and appreciation of music; technical knowledge of music not required.

MUS 116. History of Jazz (3) A survey of the evolution of this American art form from its African roots and European influences to the present. Technical knowledge of music not required.

MUS 117. American Music (3) A survey of American composers, musicians, and music making (classical, folk and religious) from the earliest days of European settlement to the present. Technical knowledge of music helpful, but not required.

MUS 118. Survey of Electronic Music (3) A non-technical survey of electronic music, analytical study of compositions from recordings, and basic compositional methods utilizing the facilities of the UNCW Electronic Music Studio. Technical knowledge of music not required.

MUS 119. Popular Music of African-American Culture (3) A socio-cultural survey of urban African-American music, its performers, producers, and songwriters from 1945 to the present. Styles from rhythm and blues to rap music are examined within the context of the communities from which they evolved.

MUS 131. Chamber Music Workshop (1) Open for any student who has had previous training and experience and who has the consent of the chairperson of the department. Small instrumental and vocal ensembles. Type of group will depend upon availability of personnel and faculty instructor. Two hours per week. Accumulative credit.

MUS 133. Opera Workshop (2) Prerequisite: MUS 195-03 or consent of instructor. The musical preparation and staging of operatic scenes through dramatic interpretation, body movement, and improvisation. Three hours each week. May be repeated by music majors for a maximum of eight semester hours.

MUS 134. Choral Workshop (3) Survey of choral literature of all periods, including contemporary and popular, through performance, score study, and analytical listening.

MUS 141-142. Class Piano I (1-1) Prerequisite: Consent of instructor. Recommended for all students enrolled in MUS 101-102 and music majors who have not passed the piano proficiency examination. Laboratory hours as required.

MUS 143-144. Class Guitar (1-1) Prerequisite: Consent of instructor. Class instruction in classical guitar. Prior experience is not required. Two laboratory hours each week.

MUS 146. Class Voice (1) Prerequisite: Consent of instructor. Singing techniques learned through vocal exercises and study of song literature. Two hours each week. Accumulative credit.

MUS 185. Wind Ensemble (1) Prerequisite: Auditions by director. Study and performance of music from the band repertoire, including a broad variety of styles, composers, and nationalities. Meets a minimum of two hours per week. May be repeated indefinitely. Accumulative credit limited to eight semester hours.

MUS 186. Concert Choir (1) Prerequisite: Auditions by director. Group studies and performs choral music of various historical periods and styles. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

MUS 187. Orchestra (1) Auditions by director. Study and performance of the orchestral literature performed with the Wilmington Symphony Orchestra which meets for a minimum of two hours per week and gives an average of four performances per year. Accumulative credit limited to eight semester hours.

MUS 195. Lower Level Applied Music, Private Lessons (1) Prerequisite: Consent of instructor. One half hour lesson per week. Requires a minimum of five practice hours per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viola	Trombone
Cello	Baritone Horn
String Bass	Tuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 196. Lower Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit (Instruments as indicated in MUS 195.)

MUS 197. Lower Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 195.)

MUS 201. Theory II (3) Prerequisite: MUS 102. Corequisite: MUSL 201-51. A study of the musical process as observed in the literature of the common practice period. Based upon both structural and functional analysis as well as problem solving and controlled composition exercises. Includes secondary dominants, chromatic approach chords and the concept of modulation.

MUSL 201-51. Aural Skills and Sight-Singing (0) Prerequisite: MUS 102. Corequisite MUS 201. Includes melodic and rhythm dictation, singing and memorizing various modes, scales and broken chord patterns in root position, harmonic dictation with emphasis on modulation. Two hours per week.

MUS 202. Music Theory II (3) Prerequisite: MUS 201. Corequisite MUSL 202-51. A study of the musical process as observed in the late common practice and early twentieth century periods. The development further of the concept of modulation and chromatic harmonies and introduction to such practices as quartal and polytonal harmonies.

MUSL 202-51. Aural Skills and Sight-Singing (0) Prerequisite: MUS 201. Corequisite: MUS 202. Continuation of MUSL 201-51 with an emphasis on inversions and chromatically derive patterns. Utilization of quartal and polytonal harmonies. Two hours per week.

MUS 203. Composition (1 or 3) Prerequisite: Consent of instructor. A beginning study of compositional techniques though direct application in original compositions. One hour seminar each week plus private instruction, Accumulative credit.

MUS 218. Electronic Music Composition (2) Prerequisite: MUS 118. A study of basic recording and synthesizer techniques utilizing the facilities of the UNCW Electronic Music Studio.

MUS 235. Jazz Improvisation (2) Prerequisite: MUS 101-102 or consent of instructor. Development of materials and practice for improvisational skills in the jazz idiom. Open to any student with instrumental experience. Presentation in both lecture and performance format.

MUS 236. Jazz Improvisation II (2) Prerequisite: MUS 235 or consent of instructor. Materials and practices for further development of improvisational skills in the jazz idiom. Presentation in both lecture and performance format.

MUS 241-242. Class Piano II (1-1) Prerequisite: MUS 142 or consent of instructor based on placement. Recommended for all music majors who have not passed the piano proficiency examination. Two laboratory hours each week.

MUS 243-244. Class Strings (1-1) Prerequisite: Consent of instructor. Class instruction in violin, viola, cello, or string bass. Two laboratory hours each week.

MUS 245. Woodwind Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 247. Brass Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 249. Percussion Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 255. Church Music Literature (3) Prerequisite: Knowledge of music fundamentals. A survey of music literature of the Western church including a study of the historical function of various musical idioms and styles.

MUS 257. Service Playing (2) Prerequisite: Permission of instructor. Practical study of service playing: organ improvisations, modulations, and related problems.

MUS 261, 262. Introduction to Music History I & II (3-3) A two-semester overview of music history and literature stressing the stylistic developments of music and related social and historical events. 261: Music history and literature of the Middle Ages, Renaissance, and Baroque. 262: Music history and literature of the Classic, Romantic, and Contemporary periods.

MUS 271. Italian Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of Italian diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 272. English Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of English diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours per week instruction.

MUS 273. German Diction for Singers (1) Prerequisite: Music major and/or consent or instructor. Basic principles of German diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 274. French Diction for Singers (1) Prerequisite: Music major and consent of instructor. Basic principles of French diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 275, 276. Keyboard Literature I & II (3-3) Prerequisite: One year private keyboard instruction at the college level. A survey of keyboard literature in relation to contemporary pedagogical use. Historical evolution of instrument design included. 275: Be-

ginning and intermediate keyboard literature of the 18th, 19th and 20th centuries. 276: Advanced literature of the 18th, 19th and 20th centuries.

MUS 285. Basic Conducting (3) Prerequisite: MUS 102, 142. An examination of conducting techniques, score reading techniques and an understanding of terminology.

MUS 301. Form/Analysis (3) Prerequisite: MUS 202. A study of forms common in Western music from 1600 to the present and the development of skills in analysis.

MUS 302. Modal Counterpoint (2) Prerequisite: MUS 301. A study of strict contrapuntal practice as observed in the church music of Palestrina, Lassus and other 16th century composers. Includes writing in 2, 3 and 4 "free" voices with and without text as well as 2 & 3 part canons. Techniques of melodic and contrapuntal inversion are also covered.

MUS 303. Tonal Counterpoint (2) Prerequisite: MUS 301. A study of contrapuntal practice as observed in the music of J.S. Bach and other 17th and 18th century composers. Includes analysis and composition of both invention and Fugue. Also includes 56 contrapuntal melodic inversion.

MUS 306. Orchestration and Arranging (2) Prerequisite: MUS 202, 243-244, 245, 247, and 249, or consent of instructor. Techniques of transcribing, arranging, and scoring music for various vocal and instrumental combinations. Designed for students concentrating in music.

MUS 307. Twentieth Century Idioms (2) Prerequisite: MUS 301. An indepth study of musical practice from 1900 to the present based upon both structural and functional analysis as well as problem solving and controlled compositional exercises. Includes quartal harmonies, mixed meters, texture and timbre as musical parameters, indeterminacy and serialism.

MUS 308. Jazz Arranging (2) Prerequisite: MUS 202, 236. Arranging and scoring the jazz combo, with emphasis on contemporary styles. Presentation in both lecture and performance format.

MUS 325. Music Education for Elementary Teachers (3) Prerequisite: MUS 105 (recommended) or MUS 115. Approach to the teaching of music at the elementary level, including the use of piano laboratory.

MUS 326. Methods of Teaching Music in the Elementary Schools (K-6) (2) Prerequisite: Consent of instructor; open only to currently enrolled music eduction majors. The purpose of this course is to study the scope and goals of the elementary music curriculum, the organization of musical content with regard to learning theories and developmental characteristics of the child, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on some of the innovative ideas in the field, including techniques developed by Orff and Kodaly. The course will also include an evaluation of music textbooks and materials for this level.

MUS 327. Methods of Teaching Music in Secondary Schools (7-12) (2) Prerequisite: Open only to currently enrolled music education majors with consent of instructor. The purpose of this course is to study the scope and goals of the secondary music curriculum, the organization of musical content with regard to learning theories and behavioral characteristics of the adolescent, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on method for teaching music in the classroom. The course will also include an evaluation of music textbooks and material for this level.

MUS 355. Music in Religious Institutions (3) Prerequisite: MUS 255. A study of the philosophic and administrative dimensions of music in religious institutions. Topics include historical antecedents and contemporary patterns.

MUS 361, 362, 363. History of Music (2,2,2) Prerequisite: MUS 261, 262 and for 362 & 363 only, MUS 301. 361: Stylistic development of music of the Medieval and Renaissance eras. 362: music history and literature of the 17th and 18th centuries. 363: Music history and literature of the 19th and 20th centuries.

MUS 364. Contemporary Music Literature (2) Prerequisite: MUS 301 and 363. A study of music from the contemporary era.

MUS 365. Modern Jazz (3) Prerequisite: MUS 116, 236. Study of jazz music and the musicians from 1940 to the present. Presentation in both lecture and performance format.

MUS 371. Instrumental Pedagogy and Literature (2) Prerequisite: Two years of college instrumental applied music. Problems, materials, and methods in teaching instruments to private students.

MUS 372. Jazz Pedagogy (2) Prerequisite: MUS 235, 285. Techniques and methods for teaching jazz, emphasizing rehearsal techniques for jazz ensembles. Lecture format plus practical conducting experience with one of the university's jazz ensembles.

MUS 373. Instrumental Methods (2) Prerequisite: Consent of instructor; MUS 285, 243, 245, 247, 249. Methods of teaching instrumental classes and ensembles from elementary through senior high school. Includes repertoire, marching band techniques, history, the designing of a total program, rehearsal techniques, techniques of developing musicianship, and practical aspects of teaching instrumental music.

MUS 375. Piano Pedagogy I (3) Prerequisite: Two years of private piano instruction at college level. Problems, materials, and methods and teaching beginning piano to children.

MUS 376. Piano Pedagogy II (3) Prerequisite: Two years of private piano instruction at college level. Problems, materials, and methods in teaching piano to older students of high school and early college age.

MUS 377. Choral Methods (2) Prerequisite: Consent of instructor; MUS 285. Methods of teaching choral ensembles from elementary through senior high school. Includes rep-

ertoire, history the designing of a total program, rehearsal techniques, techniques of developing musicianship and the practical aspects of teaching choral music.

MUS 379. Vocal Pedagogy and Literature (2) Prerequisite: Two years of college vocal study. Basic procedures of teaching voice. Materials for solo voice studied and performed.

MUS 393. Junior Recital (1) Prerequisite: Consent of faculty. A performance of at least 20 minutes of repertoire selected from the appropriate levels of difficulty. May be repeated once for credit.

MUS 395. Upper Level Applied Music, Private Lessons (1) Prerequisite: Consent of instructor. One half hour lesson per week. Requires a minimum of five practice hours per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viola	Trombone
Cello	Baritone Horn
String Bass	Tuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 396. Upper Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

MUS 397. Upper Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

MUS 403. Advanced Composition (3) Prerequisite: MUS 203 and consent of instructor. Music majors only. Advanced study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

MUS 475. Practicum in Applied Teaching (1) Prerequisite: MUS 371, or 375-376, or 379. Students will develop and implement a private studio under the guidance of a faculty member.

MUS 485. Advanced Conducting (2) Prerequisite: MUS 285. Study in either choral or instrumental techniques. This course enables the student to work with the appropriate ensemble using selected literature, i.e., orchestral, wind ensemble or vocal literature, for the various mediums.

MUS 490. Thesis (1) A research thesis in a subject to be determined in consultation with the music faculty during the semester preceding the taking of this course.

MUS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

MUS 493. Senior Recital (1) Prerequisite: Consent of the music faculty. A performance of at least 40 minutes of repertoire selected from the appropriate levels of difficultly. May be repeated once for credit.

MUS 495. Seminar in Music (1-3) Prerequisite: Junior standing. Consideration of special subjects not covered in detail in regular course offerings. More than one topic may be taken for credit.

MUS 499. Honors Work in Music (2-3) Prerequisite: Eligibility for honors program, and junior or senior standing. Independent study for honor students.

For 292 and 492; 294 and 494, see explanation on p. 90.

FOREIGN LANGUAGES AND LITERATURES

Dr. McNab, *Chairperson.* Dr. Brophy, Dr. Deagon, Dr. Lapaire, Mr. Lowe, Dr. J. Mount, Dr. T. Mount, Dr. Parra, Dr. Perez, Ms. Stites, Dr. Woodhouse.

A student who offers two high school units in French, German or Spanish, who wishes to continue the study of the same language, will normally begin at the intermediate level. However, a student whose placement test scores and high school grades are not satisfactory will be placed in and granted credit for the elementary level. A student who offers three or more high school units in French, German, or Spanish, and whose placement test scores are sufficiently high, may gain admission to the 300 level courses in the language.

The Department of Foreign Languages and Literatures offers the B.A. degree in French or Spanish.

Requirements for a Concentration in French for the B.A. degree: FRH 305, 306, 307, 311, 312, 321, 322, 336 and at least six credit hours at the 400 level, only three of which may be obtained by means of a FRH 491. A "C" or better grade in each course taken in the area of concentration. Required collaterals: MLN 305 or ENG 320; HST 101 and 102, one course in English literature.

Requirements for a Concentration in French for the B.A. degree with Teacher Certification: Students seeking certification in French (K-12) must complete the requirements for the French concentration (including collaterals) and the professional education requirements listed under the School of Education. Entry requirements to the School of Education Teacher Education Program are described on page 85.

French Course Descriptions

(Department of Foreign Languages and Literatures)

FRH 101-102. Introductory French (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken French; reading, writing, and basic conversation. Fall and spring.

FRH 105. French for Tourists (3) General interest course, but designed specifically for those planning to travel in a French-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs.

FRH 201-202. Intermediate French (3-3) Prerequisite: FRH 102 or equivalent. A review of the grammatical structure of the language. Application of the language in composition, conversation and readings.

FRH 209. French Literature in Translation (3) Representative works from the literature of France and the French-speaking world. Readings and class discussions in English.

FRH 305. Conversation and Composition (3) Prerequisite: FRH 202 or equivalent. Intensive training in spoken and written French.

FRH 306. Advanced Grammar (3) Prerequisite: FRH 202 or equivalent. Comparative grammar and translation; required of those preparing to teach at the high school level.

FRH 307. Phonetics (3) Prerequisite: FRH 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those preparing to teach at the high school level.

FRH 311, 312. French Civilization (3-3) Prerequisite: FRH 202. Geographical, historical, and cultural aspects of France. 311: From prehistoric times to the French Revolution, 312: From the French Revolution to the present.

FRH 321, 322. Survey of French Literature (3-3) Prerequisite: FRH 202. Extensive readings covering the main currents of French literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports.

FRH 336. Explication De Texte (3) Prerequisite: FRH 305 or equivalent. Training in French textual criticism; oral and written reports.

FRH 405. Advanced Conversation and Composition (3) Prerequisite: FRH 305 or equivalent. Emphasis on oral French, essay writing and translation. Recommended for students preparing for teaching.

FRH 425. French Literature of the Sixteenth Century (3) Prerequisite: FRH 322 or equivalent. Major writers of the Renaissance: Rabelais, Ronsard, Du Bellay, Montaigne, and others; oral and written reports.

FRH 426. French Literature of the Eighteenth Century (3) Prerequisite: FRH 322 or equivalent. Major writers of the French Enlightenment: Montesquieu, Voltaire, Diderot, Rousseau and others; oral and written reports.

FRH 430. The French Novel of the Twentieth Century (3) Prerequisite: FRH 322. Reading, discussion and analysis of representative works of Proust, Gide, Malraux, Sartre, Camus, and others; oral and written reports.

FRH 435. The Nineteenth Century French Novel (3) Prerequisite: FRH 322. Reading, discussion and analysis of major novels; romanticism, realism and naturalism.

FRH 436. French Classicism (3) Prerequisite: FRH 322. Reading, discussion and analysis of representative works with emphasis on dramatic literature of the 17th century: Corneille, Racine, and Moliere.

FRH 437. French Lyric Poetry from Villon to Baudelaire (3) Prerequisite: FRH 322 or equivalent. Major lyric forms from the Middle Ages to the 19th century; oral and written reports.

FRH 438. Masterpieces of French Drama (3) Prerequisite: FRH 322 or equivalent. The theatre in France from the Renaissance to modern times. Representative texts; oral and written reports.

FRH 439. Masterpieces of French Prose Fiction (3) Prerequisite: FRH 322 or equivalent. Representative works of imaginative French Prose from the 17th century to the present; oral and written reports.

FRH 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

FRH 495. Seminar in French Literature (1-3) Prerequisite: FRH 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentation, reports, discussions.

FRH 499. Honors work in French (2-3) Prerequisite: Senior standing and eligibility for honors program. Independent study for honors students.

Requirements for a Concentration in Spanish for a B.A. degree: SPN 305, 306, 307, 311, 312, 321, 322, and at least six credit hours at the 400 level, only one of which may be obtained by means of SPN 491. A "C" or better grade in each course taken in the area of concentration. Required collaterals: MLN 305 or ENG 320, HST 101 and 102, one course in English literature.

Requirements for a Concentration in Spanish for the B.A. degree with Teacher Certification: Students seeking certification in Spanish (K-12) must complete the requirements for the Spanish concentration (including collaterals) and the professional education requirements listed under the School of Education. Entry requirements to the School of Education Teacher Education Program are described on page 85.

Spanish Course Descriptions

(Department of Foreign Languages and Literatures)

SPN 101-102. Introductory Spanish (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken Spanish; reading, writing and basic conversation.

SPN 105. Spanish for Tourists (3) General interest course, but designed specifically for those planning to travel in a Spanish-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs.

SPN 201-202. Intermediate Spanish (3-3) Prerequisite: SPN 102 or equivalent. A review of the grammatical structure of the language. Application of the language in composition, conversation and readings.

SPN 203. Intermediate Spanish: Reading (3) Prerequisite/corequisite: SPN 202. Emphasis on reading (fiction and non-fiction) with the goals of applying effective reading techniques and strategies, increasing vocabulary, and improving general reading and oral communication skills.

SPN 209. Spanish Literature in Translation (3) Study of representative works from the literature of Spain. Reading and class discussions in English.

SPN 210. Spanish-American Literature in Translation (3) Study of representative works from the literature of Spanish America. Readings and class discussion in English.

SPN 211. Spain Today (3) An examination of the institutions and social fabric of contemporary Spain as they evolved from traditional roots, including units on history, politics, regional culture, literature, music, art, customs and economic resources. Readings and class discussions in English.

SPN 212. Latin America Today (3) An examination of the institutions and social fabric of contemporary Latin America as they evolved from traditional roots, including units on history, politics, indigenous cultures, literature, music, art customs, and economic resources. Readings and class discussions in English.

SPN 304. Business Spanish (3) Prerequisite: SPN 202 or equivalent. Designed for students who need familiarization with the terminology necessary for the fields of economics, business, accounting, natural sciences and others. Business correspondence in Spanish and the currency systems of the Spanish-speaking countries are included.

SPN 305. Conversation and Composition (3) Prerequisite: SPN 202 or equivalent. Intensive training in spoken and written Spanish.

SPN 306. Advanced Grammar (3) Prerequisite: SPN 202 or equivalent. Grammatical forms and usage; required of those who plan to teach at the high school level.

SPN 307 Phonetics (3) Prerequisite: SPN 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those who plan to teach at the high school level.

SPN 311, 312. Spanish and Spanish-American Civilization (3-3) Prerequisite: SPN 202 or equivalent, Geographical, historical and cultural aspects of Spain (311) and Spanish America (312).

SPN 321, 322. Survey of Spanish Literature (3-3) Prerequisite: SPN 202 or equivalent. Extensive readings covering the main currents of Spanish literature; emphasis in classroom discussions on textual analysis and criticism; oral and written reports.

SPN 405. Advanced Conversation and Composition (3) Prerequisite: SPN 202 or equivalent. Emphasis on oral Spanish, essay writing and translation. Recommended for students preparing for teaching.

SPN 421, 422. Spanish-American Literature (3-3) Prerequisite: SPN 322 or equivalent. 421: Representative works from colonial times to the Modernista movement. 422: Representative works from the Modernista movement to the present.

SPN 430. Spanish Literature of Middle Ages (3) Prerequisite: SPN 322 or equivalent. Literature of medieval Spain.

SPN 431. Golden Age Literature (3) Prerequisite: SPN 322 or equivalent. Spanish literature of the sixteenth and seventeenth centuries.

SPN 432. Modern Spanish Literature (3) Prerequisite: SPN 322 or equivalent. Spanish literature from the beginning of the eighteenth century to the Generation of 1898.

SPN 433. Contemporary Spanish Literature (3) Prerequisite: SPN 322 or equivalent. Spanish literature from the Generation of 1898 to the present.

SPN 434. Cervantes (3) Prerequisite: SPN 322 or equivalent. Don Quixote and other selected works.

SPN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

SPN 495. Seminar in Spanish Studies (1-3) Prerequisite: SPN 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions.

SPN 499. Honors Work in Spanish (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

German Course Descriptions

(Department of Foreign Languages and Literatures)

GER 101-102. Introductory German (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice, intensive study of the basic patterns of spoken German; reading, writing and basic conversation.

GER 201-202. Intermediate German (3-3) Prerequisite: GER 102 or equivalent. A review of the grammatical structure of the language. Application of the language in composition, conversation and readings.

GER 209. German Literature in Translation (3) Study of representative works from the literature of the German-speaking world. Readings and class discussions in English.

GER 305. Conversation and Composition (3) Prerequisite: GER 202 or consent of instructor. Intensive training in spoken and written German.

GER 321, 322. Survey of German Literature (3-3) Prerequisite: GER 202 or consent of instructor. Extensive reading covering the main trends of German literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. 321: Literature through Goethe. 322: Literature beginning with the Romantiker.

GER 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

Classics Course Descriptions

(Department of Foreign Languages and Literatures)

CLA 110. English Words from Latin and Greek Elements (3) A systematic study of the Latin and Greek elements from which over two thirds of English vocabulary are formed. Emphasis on developing a better understanding of English vocabulary and usage, learning to analyze unknown words encountered in reading, learning principles of linguistic change, and examining the history of the English language. Special sections on legal, scientific, military and sports terminology. No knowledge of Latin or Greek is needed.

CLA 209. (ENG 209) Greek and Roman Literature in Translation (3) Prerequisite: ENG 102. Major authors of ancient Greece and Rome. Emphasis on ancient literature in its social context and on classical themes in later literatures.

CLA 210. (ENG 210) Mythology (3) Prerequisite: ENG 102. The major mythological systems of Western society—Greek, Roman and Norse. Mythology of other parts of the world, especially the Ancient Middle East, and related material are also considered.

LAT 101-102. Introductory Latin (3-3) Emphasis on achievement of an active knowledge of the Latin language and reading ability in classical Latin. Intensive study of Latin grammar, aural/oral practice; reading from Latin authors, especially Ovid; discussions to introduce the students to the literature, culture and society of ancient Rome.

LAT 201-202. Intermediate Latin (3-3) Prerequisite: LAT 102 or equivalent. A review of the grammatical structure of the language. Emphasis on developing reading skills through readings from various Latin authors.

LAT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

Modern Languages Course Descriptions

(Department of Foreign Languages and Literatures)

MLN 305. Romance Linguistics (3) Prerequisite: FRH 307 or SPN 307 or equivalent. Origins of French and Spanish. Historical phonology, morphology and syntax; some attention to comparative and applied linguistics.

Portuguese Course Descriptions

(Department of Foreign Languages and Literatures)

PRT 101-102. Introductory Portuguese (3-3) Emphasis on the acquisition of an active and useful command of the language. Intensive aural-oral practice with the study of grammatical structures along with the pursuit of a reading and writing ability. Discussions to introduce the students to the culture of the Portuguese-speaking areas of the world, primarily Brazil and Portugal.

PRT 201-202. Intermediate Portuguese (3-3) Prerequisite: PRT 102 or equivalent. A review of the grammatical structure of the language, application of the language in composition, conversation and readings.

FRENCH

(See Foreign Languages and Literatures)

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

HEALTH, PHYSICAL EDUCATION AND RECREATION

Dr. Sue Combs, *Chairperson*. Mr. D. Allen, Dr. E. Allen, Mr. Blackmore, Ms. Brown, Mr. Chapman, Dr. Culkin, Mr. Ellington, Mr. Gibson, Dr. Gladwell, Mr. Guthrie, Dr. Hatcher, Mr. Honeycutt, Dr. C. Lewis, Mrs J. Lewis, Dr. Maurer, Ms. McDaniel, Dr. D. Miller, Ms. Parker, Dr. Peel, Mr. Samuels, Mr. Scalf, Ms. Whiting.

Requirements for a Concentration in Physical Education for the B.A. degree: PED 200 plus two hours from PED 201-204, 235, 315, 320, 340, 349, 355, 360, 386, 415, 435, HEA 201, and elective chosen from PED 421-426, SOC 200, PED 236, 301, 336, 455, 460. PED 216 and 217 must be taken as part of the Basic Studies Natural Sciences requirement. A "C" or better grade in all required Physical Education, Education, and Psychology courses. Students are certified in Physical Education. Students may qualify for add-on certification in Health by completing the following additional courses: HEA 105, 205, 207, 234, 304, and 305.

Students must satisfy the aquatics competency test or one of the following courses: PED 105, 106, 107, 108, or 109.

Health Course Descriptions

(Department of Health, Physical Education and Recreation)

HEA 105. Individual Well-Being (3) Topical areas and issues in health explored within the physical, emotional, social, intellectual, and spiritual dimensions of personal wellness.

HEA 201. First Aid, Safety, and Cardio-Pulmonary Resuscitation (2) A certification course for American Red Cross First Aid and Cardio-Pulmonary Resuscitation. The class will meet for two lecture hours and one lab hour each week.

HEA 205. Reproduction and Sexuality (3) Prerequisite: HEA 105. Emphasizes the anatomy and physiology of reproduction, conception, prenatal growth and parturition; relevant issues pertaining to human sexuality, childbearing and sexual diseases.

HEA 207. Nutrition (3) The main focus of this course will be the application of the principles of nutrition as related to health, various levels of wellness, and practices of health care. Emphasis on basics of sound nutrition, requirements of various food elements, diet planning, diet patterns for specific age groups, nutritional fads and weight control.

HEA 234. Principles of Health Education (3) An introduction to health education program planning, implementation, and evaluation in various health promotion settings. Focuses on responsibilities and strategies of entry-level health educators. Includes a supervised experience in a health-related agency.

HEA 304. Health and Safety Education, Grades K-9 (3) An overview of the three components of the school health program: health instruction, health services, and the healthful school environment. Focuses on method and materials for health instruction, grades K-9. Emphasizes the role and responsibility of the classroom teacher in the areas of first aid, safety, and health problems of children.

HEA 305. Curriculum Methods in Health (3) Examines the organization and development of the school health curriculum. Emphasis on practical skills related to unit planning and lesson presentation.

Physical Education Course Descriptions

(Department of Health, Physical Education and Recreation)

PED 101. Foundations of Physical Activity (2) Study of immediate and long-term effects of physical activity and establishment of individualized programs for acquiring and maintaining physical fitness. One lecture and two hours of activity each week.

PED 102. Physical Education Activity (1) Prerequisite: Students planning to enroll in PED 102 sections of Aerobic Dance, Physical Conditioning, Running Fitness, Weight Training, Basic Canoeing, Basic Sailing, Cross Country Skiing, Exercise and Weight Control, and Ice Skating should consult individual instructors about prerequisite requirements. Students may accumulate up to seven hours credit in PED 102, but are limited to one hour per semester. Each activity class meets three times each week.

Archery	Badminton/Tennis
Tennis	Racquetball/Tennis
Golf	Racquetball/Archery
Bowling	Racquetball
Gymnastics	Aerobic Dance
Weight Training	Basic Canoeing
Racquetball	Motorboat Handling
Physical Conditioning	Running Fitness
Intermediate Tennis	Exercise and Weight Control
Dance Techniques	Basic Sailing
Cross Country Skiing	Ice Skating

PED 103. (REC 103) Physical Education Activity - Program of Outdoor Pursuits (3) Prerequisite: PED 101 or equivalent. Study of and participation in the skills and knowledge of various outdoor recreational activities in a natural setting. Minimum of 10 one-hour lecture sessions and a minimum of 11 excursion days. Travel and subsistence costs for activities borne by the student. (Non-majors may repeat PED 103, in a different activity area. only once.)

PED 104. Scuba (2) Prerequisite: PED 102 (Swimming) or consent of instructor. Basic SCUBA Diving Course. Emphasizes the history, theory and principles of diving. Hyperbaric physiology; equipment development; use and maintenance; development of diving skills and diving safety. Meets certification requirements for all national certifying agencies to the open water level.

PED 105. Lifeguard Training (1) Prerequisite: Current certification in CPR and First Aid. Trains and certifies for American Red Cross Lifeguard Training.

PED 106. Beginning Swimming (1) Designed to teach one how to swim and to instruct the basic strokes including front crawl stroke, backstroke, breaststroke, sidestroke, elementary backstroke as well as survival swimming.

PED 107. Intermediate Swimming (1) Designed to develop competency in basic swimming strokes of front crawl stroke, backstroke, breaststroke, sidestroke and elementary backstroke as well as basic skills of water safety and lifesaving.

PED 108. Advanced Swimming (1) Emphasis on developing competencies in basic swimming strokes of front crawl, backstroke, breaststroke, sidestroke, elementary backstroke; turns; develop skill in lifesaving techniques, water safety and cardiovascular conditioning.

PED 109. Water Safety (1) Prerequisite: Possess current Red Cross Emergency Water Safety or Lifeguard Training Certificate. Designed to instruct students how to teach others the various skills and courses offered in the American Red Cross Swimming Programs.

PED 136. (FNA 136) Movement Exploration (3) Study through creative dance techniques of the body's potential as a tool for creative expression, exploration of the relationship as a tool for creative expression, exploration of the relationship of dance to other art forms. Solo and group work using basic art concepts and the individual's own experience as material for movement improvisation and composition. No dance training necessary.

PED 200. Dance, Tumbling, Outdoor Pursuits (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities. Each activity class meets three times each week.

PED 201. Softball, Soccer, Aerobics (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities. Each activity class meets three times each week.

PED 202. Archery, Football, Volleyball (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities. Each activity class meets three times each week.

PED 203. Weight Training, Basketball, Tennis (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities. Each activity class meets three times each week.

PED 204. Badminton, Golf, Track/Field (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities. Each activity class meets three times each week.

PED 216. (BIO 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three lab hours each week.

PED 217. (BIO 217) Human Anatomy and Physiology II (3) The study of human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement.

PED 235. History and Philosophy of Human Movement (2) Study of the discipline of human movement in ancient and modern civilizations with particular attention on philosophies influencing its historical development in Western Europe and America.

PED 236. Athletic Officiating (3) Rules, officiating techniques, and problems arising in officiating with emphasis on football, basketball, baseball, volleyball, and tennis.

PED 301. Prevention, Treatment , and Rehabilitation of Athletic Injuries (3) Prerequisite: PED 216. A basic course in the management of athletic injuries.

PED 315. Motor Development (2) Prerequisite: PED 216 or consent of instructor. Analysis of the sequential progression of fundamental motor skills from infancy through adolescence. Study of physical growth patterns and biological maturity as related to motor performance. Attention also given to perceptual motor programs for children. A field experience is required.

PED 320. Methods of Teaching Motor Activity (3) Emphasis on instructional methodology appropriate to teaching motor skills and sports activities, formulation of objectives, and lesson planning. A field experience is required.

PED 335. Reading in Physical Education (3) A comprehensive review of literature in physical education and related areas.

PED 336. An Approach to Coaching (3) The application of philosophical and psychological knowledge and principles to the administration and coaching of sports with special emphasis on research literature.

PED 340. Kinesiology (3) Prerequisite: PED 216. (BIO 216). Study of neuromuscular and mechanical principles of human motion, with emphasis on movement problems most often encountered in fitness activities and sport skills.

PED 349. (BIO 349) Physiology of Exercise and Sport (4) Prerequisite: PED 216 or BIO 345. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and two laboratory hours each week.

PED 355. Measure and Evaluation of Human Physical Performance (3) Elementary statistical techniques used in research and interpretation of data; identification of physical fitness and movement components; evaluation of measures now available in the field and administration of performance tests.

PED 360. Motor Learning (3) An introduction to the principles of motor learning, this course is concerned with the analysis and application of physiology and psychological principles related to the learning and performance of motor skills. Two lecture and one laboratory hours each week.

PED 379. Legal Liabilities in Athletics and Physical Education (3) Prerequisite: Junior or senior level. An introduction to the legal liabilities existing in physical education and athletics. Terminology, procedure, operations of the law and case studies will be studied enabling students to positively confront liability situations should they arise. Emphasis on state laws as well as national laws.

PED 386. Physical Education in the Primary Grades (K-3) (3) A study of the theory, techniques and methods of developing and implementing a total program of physical education for children in grades K-3. Emphasis on the "movement approach" to learning fundamental motor skills, equipment construction, rhythms and dance, stunts and tumbling, classroom games of low organization, including activities in gymnastics, dance and fitness development. A field experience is required.

PED 387. Physical Education in the Intermediate Grades 4-6 (3) Methods and materials for developing and conducting a yearly program of physical education for children in grades 4-6,. Emphasis on refinement of sports skills through lead-up games, relays and other games of low organization, including activities in gymnastics, dance and fitness development.

PED 401. Advanced Athletic Training (3) Prerequisite: PED 301. Concepts, skills, and techniques for the care of athletic injuries. Study of prevention, evaluation and recognition, first aid/emergency care, rehabilitation, organization and administration, counseling and guidance, and education as related to athletic injuries.

PED 415. Movement Considerations for Special Populations (3) Prerequisite: PED 216 and junior or senior standing. Problems relating to the physiological and kinesiology needs of the individual with physical limitations. Emphasis on the selection of activities that will provide opportunities for optimum development of which he or she is capable. A field experience is required. Two lecture and two laboratory hours each week.

PED 416. Laboratory Techniques and Research Methods in Exercise Physiology (3) Prerequisite: PED 349 and consent of instructor. A study of laboratory techniques and research methods used to evaluate physiological response to exercise and training. Primarily a laboratory experience.

PED 421-422-423-424-425-426. Methods of Coaching (2) Emphasis on strategy, fundamentals, techniques, training and related duties.

421 Basketball
422 Basketball
423 Football
424 Track and Field
425 Soccer
426 Volleyball

PED 435. Organization and Administration of Health and Physical Education and Athletics (3) Prerequisite: Junior or senior standing or consent of instructor. Analysis of problems associated in its planning, organizing, and directing physical education and athletic programs.

PED 436. Intramural (3) Prerequisite: Junior or senior standing. The position of intramural activities in the overall program of physical education. Analysis of problems involved in the administration and organization with emphasis on the practical approach in school systems.

PED 440. Selected Topics in Physical Education (3) Survey course for public school teachers with emphasis on updating traditional ideas and principles and introducing new ideas and problems in health and physical education.

PED 455. Advanced Tests and Measurements in Physical Education (3) Prerequisite: PED 355. Statistical techniques as applied to research in physical education; measurement and evaluation in areas of agility, balance, power, flexibility, kinesthetic perception and anthropometrics.

PED 460. Sport Psychology (3) Prerequisite: Junior or senior standing within the department or consent of instructor. Study of psychological and psychosocial knowledge and principles as they relate to sport participants and the sport environment.

PED 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

PED 499. Honors Work in Physical Education (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Requirements for a Concentration in Parks and Recreation Management for the B.A degree: Core Courses: REC 265, 268, 270, 348, 360, 368, 375, 450, 465, 469, 498.

Commercial Recreation Option: REC 350, 351, 366, 495. Required collaterals (13 hours): ACG 201, 203, MGT 350, MKT 340.

Outdoor Recreation Option: REC 271, 366, 470. Required collaterals (12 hours): BIO 206 and two of the following: 356, 366, 456, 475.

Therapeutic Recreation Option: REC 369, 370, 467, 468; PED 216, 349. Required collateral (12 hours): EDN 260; PSY 347; SOC 215; SWK 396.

A grade of "C" or better on all required recreation and physical education courses.

Recreation Course Descriptions

(Department of Health, Physical Education and Recreation)

REC 103. (PED 103) Physical Education/Recreation Activity Program of Outdoor Pursuits (3) Prerequisite : PED 101 or equivalent. Study of and participation in the skills and knowledge of various outdoor recreational activities in a natural setting. Minimum of 10 one-hour lecture sessions and a minimum of 11 excursion days. Travel and subsistence costs for activities borne by the student. (Non-majors may repeat PED 103, in a different activity area, only once.)

REC 265. Introduction to Recreation and Parks (3) Scope, development, structure, purposes, functions, interrelationships of public, commercial, private and voluntary agencies engaged in rendering recreation and park services.

REC 268. Leadership and Group Dynamics in Leisure Services (3) Skills and techniques of group leadership; social dynamics of individuals in various group settings. Students observe, participate in, and lead activities in a variety of leisure service situations in and out of class.

REC 270. Program Planning for Recreation and Parks (3) Prerequisite: REC 265. An introduction to programming for recreation and parks, including the major areas of recreation, planning principles, objectives and evaluation. Program factors such as scheduling, personnel, facilities, equipment, etc., will be considered.

REC 271. Camp Leadership and Management (3) Prerequisite: REC 265 or consent of instructor. Study of the segment of park recreation programs involved with current camp practices, philosophy, leadership and management.

REC 280. Experiential Techniques for Interpreting Outdoor Recreation Resources (3) An introduction to the techniques for interpreting natural and cultural resources to the visiting public in outdoor recreation settings. Focus is on the development of experiential program techniques and the use of written, visual, and audio-visual media to provide outdoor living skills, natural history, cultural heritage, and ecological concepts to the public.

REC 348. Practicum in Recreation (3) Prerequisite: REC 265, 268, and 270. Supervised experience in recreation and/or park setting. Relates theory to practical application in the field. Placements chosen from community, commercial, outdoor or therapeutic recreation settings.

REC 350. Recreation and Commercial Enterprise (3) Prerequisite: REC 265 or consent of instructor. Identification, development, operation and impact of profit-oriented recreation enterprises. Investigation of feasibility studies, sources of technical assistance, financing, facility planning and development, marketing and managerial requirements.

REC 351. Travel and Tourism (3) An introduction to the commercial area of the leisure field which is concerned with travel and tourism.

REC 360. Outdoor Recreation (3) Prerequisite: REC 265 or consent of instructor. The scope, organization, and program activities using resources in large parks, forests, and primitive areas. Consideration will be given to private, local, state, and federal agencies concerned with outdoor recreation in these areas.

REC 366. Water Related Recreation and Park Facilities and Programs (3) Prerequisite: REC 265 or consent of instructor. Water-based resources for recreation activities and programs. Emphasis on swimming pools and coastal resources management. Attention also given to reservoirs/lakes, rivers/ streams, commercial amusements and decorative uses of water.

REC 367. The Arts and Recreation (3) Prerequisite: REC 265. Administrative problems involved in organizing quality cultural arts in recreation and parks departments and other leisure services agencies. Areas to be examined include financing, personnel, facilities, and equipment. Funding possibilities and relationships between the National Endowment for the Arts, state arts, state arts councils, local arts councils, and recreation and parks departments will also be studied.

REC 368. Introduction to Therapeutic Recreation and Special Populations (3) Prerequisite: REC 265 or consent of instructor. Therapeutic recreation service: its historical and professional development; characteristics and leisure needs of special populations it serves; and settings for service delivery -hospitals, residential care facilities, and communities.

REC 369. Therapeutic Recreation for the Aging (3) Prerequisite: REC 368. Biological, sociological, and psychological aspects of aging as related to the planning and delivery of therapeutic recreation services for dependent and independent elderly.

REC 370. Assessment and Adaptation for Therapeutic Recreation Services (3) Prerequisite: REC 368. Methods and procedures for client assessment, activity analysis, and task analysis in preparation for the adaptation of programs, facilities, and equipment for therapeutic recreation service delivery to persons with disabilities.

REC 375. Management of Leisure Service Systems (3) Prerequisite: REC 348 or consent of instructor. Organization and administration of leisure services including the management of human resources, motivation and conflict resolution, managerial leadership, legal aspects of leisure services and issues related to policy development and implementation.

REC 430. Advanced Management of Leisure Service Systems (3) Prerequisite: REC 375. Application of advanced management principles to leisure service delivery systems, focusing on those aspects of financial management, marketing practices, and policy development that relate to leisure service operations.

REC 450. Conflict Resolution in Recreational Leadership (3) Prerequisite: REC 265. An experiential approach to the study of conflict resolution in recreation leadership and management.

REC 465. Park Planning and Design (3) Prerequisite: REC 375. Basic principles in planning design and development of park and recreation areas and facilities. Safety, legal liability, contracting, maintenance and vandalism control are also studied.

REC 467. Leisure Education in Therapeutic Recreation (3) Prerequisite: REC 368. An overview of the leisure education process as an aspect of therapeutic recreation service delivery. The course encompasses a review of leisure education and strategies for the development, implementation, and evaluation of leisure education programs for persons with disabilities.

REC 468. Therapeutic Recreation: Program Planning and Implementation (3) Prerequisite: REC 370, corequisite: REC 467. Advanced level course in programming and program implementation for individuals who are disabled or in other special population groups. Emphasis on sources of funding, community awareness and successful programing techniques.

REC 469. Research Methods in Recreation and Parks (3) Prerequisite: REC 375. Research techniques employed to solve problems in the recreation and parks field. Research projects, workshops and clinics relative to specific problems on an independent and group basis will be undertaken.

REC 470. Outdoor Recreation Management (3) Prerequisite: REC 360. Advanced level course in giving in-depth exposure to management techniques necessary for the administration of major outdoor recreation areas including national park areas, national forest preserves, state parks, county park systems, municipal park systems and commercial areas such as marinas and camp sites. Emphasis on budgeting, personnel management, facility planning and design.

REC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

REC 495. Seminar in Recreation (1-3) Prerequisite: REC 375. Discussion of selected topics drawn from current literature. Discussions with various professionals from county, municipal, state, federal, and private recreation and park agencies.

REC 498. Internship in Leisure Services (6) Prerequisite: REC 375 and six hours from REC 465, 469, or 495. A progression of professional field experiences relating theory to practical experience. Work experiences involving program planning and administrative procedures in county, municipal, institutional and voluntary settings.

REC 499. Honors Work in Recreation (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492; 294 and 494, see explanations on p. 90.

HISTORY

Dr. Kinzer, *Chairperson.* Mr. W. Allen, Dr. Bailey, Dr. Berkeley, Dr. Cable, Dr. Clark, Dr. Haley, Dr Kalia, Dr. Leutze, Dr. McCaffray, Dr. McCarthy, Dr. McLaurin, Dr. Seidman, Dr. Toplin, Dr. Usilton, Dr. Watson.

Requirements for a Concentration in History for the B.A. degree: HST 101, 102, 103, 201, 202; an additional 27 hours in history at the 300 - 400 level, and overall "C" average in courses taken within the department. Students may take three hours at the 200 level in addition to HST 201 and 202, and are required to take at least three hours at the 400 level, and may count no more than six hours in HST 491 and 495 toward the major. Students are required to take at least one upper level course in European, United States, and Third World history (Africa, Asia, Latin American and Middle East). HST 490, Senior Seminar, is required of all students. Students are also expected to complete the required lower level courses before upper level ones. Required collaterals include 21 hours selected from departmentally-approved courses in at least four of the following areas: English, foreign languages and literatures, philosophy and religion, anthropology, economics, geography, political science and sociology. History majors working toward certification in history or social studies for secondary school teaching must complete a minimum of 21 hours in anthropology, economics, geography, political science and sociology with courses in at least three areas, in addition to Teacher Education Program requirements.

History Courses Descriptions

HST 101,102. Western Civilization (3-3) 101: History of Civilization to 1650. 102: History of Civilization from 1650 to the present.

HST 103. Introduction to Global History (3) An introduction to the global effects of colonialism, industrialism and nationalism with special emphasis on Asia, Africa, Latin America and the Middle East since 1500.

HST 201, 202. American History (3-3) 201: United States to 1865. 202: United States from 1865 to present.

HST 237. Women in Modern America (3) Survey of the female experience from the mid-nineteenth century to the present. A focus on three areas which affect the lives of modern women: work, politics and sexuality. Differences between the first and second woman's movement, the sexual revolutions of the 1920s and 1960s, and the changing nature of women's work in modern and post-modern society are explored in a comparative context.

HST 261. Afro-American History (3) A concise survey of the major themes and events in the history of black Americans from the colonial period to the present.

HST 271. The Sea History (3) Prerequisite: HST 101-102 or consent of instructor. The history of mankind's interaction with the sea, focusing on its importance for resources, trade and transport, exploration, and warfare.

HST 273. Evolution of Warfare (3) The development of war from ancient times to the present, emphasizing its effect upon society.

HST 275. History of Science Since 1500 (3) An introduction to the history of the major developments in western science from the scientific revolution to the present, including an examination of both the origins of scientific discoveries and their impact on society.

HST 300. The American Military Experience (3) Prerequisite: HST 201-202 or consent of instructor. A survey of the American military experience from the colonial period to the present with emphasis on the wars of America, the evolution and development of military policy, strategy, tactics, and technology; and the relationship of military affairs to the political, social, and economic institutions of America.

HST 305. The Ancient Near East (3) Prerequisite: HST 101-102 or consent of instructor. An intensive political and cultural study of ancient Babylonian, Egyptian, and other Near Eastern civilizations.

HST 306. Ancient Greece and Rome (3) Prerequisite: HST 101-102 or consent of instructor. A study of the civilization of ancient Greece and Rome with special emphasis on the Greek classical period and the Pax Romana.

HST 311,312. History of England (3-3) Prerequisite: HST 101-102 or consent of instructor. 311: From the Roman invasion to the Wars of the Roses. 312: From King Henry VIII to the twilight of the British Empire.

HST 315. History of Ireland (3) Prerequisite: HST 101-102 or consent of instructor. A brief survey of the history of Ireland from Neolithic times to the present, with emphasis on the Celtic culture, Christian influences, and the religio-political conflicts of the nineteenth and twentieth centuries.

HST 316. British Empire and Commonwealth (3) Prerequisite: HST 101-102 or consent of instructor. A consideration of the British Empire, evolution of the Commonwealth and the emergence of additional post-World War II areas of independence.

HST 321. History of Modern France (3) Prerequisite: HST 101-102 or consent of instructor. History of France from the French Revolution and Napoleon through the political, economic and social developments of the nineteenth century to the World Wars of the twentieth century.

HST 323. History of Modern Germany (3) Prerequisite: HST 101-102 or consent of instructor. Study of German nationalism. German unification, the Bismarckian empire, Hitler's Third Reich, and the two Germanies since World War II.

HST 325, 326. History of Russia (3-3) Prerequisite: HST 101-102 or consent of instructor. 325: To the Bolshevik Revolution. 326: From the Bolshevik Revolution to the present.

HST 327. Modern Israel (3) Prerequisite: HST 102 or consent of instructor. The origins of the modern state of Israel; the history of Zionism, the Holocaust, and Great Power Diplomacy; evolution of Israel since 1948; political, social, economic, cultural, intellectual, scientific, and technological development; the Arab-Jewish conflict; and Israeli democracy and world politics.

HST 328. European Social History from 1650 to the Present (3) Prerequisite: HST 101-102 or consent of instructor. The lives of ordinary people in different regions of Europe, under feudal, monarchial, capitalist, and Marxist societies; the impact of climate, geography, language, religion, education, and work on individuals, families, social groups, and nations.

HST 329. European Intellectual History from 1650 to the Present (3) Prerequisite: HST 101-102 or consent of instructor. A survey of the main currents of European thought and their relation to European society in general from the Scientific Revolution to present.

HST 330. Womanhood in America: Family, Work and Community Life (3) Prerequisite: HST 201-202 or consent of instructor. An examination of American women and women's roles from the colonial period to the present.

HST 331. American Urban history (3) Prerequisite: HST 201-202 or consent of instructor. The transition in America from a pre-industrial rural society to an industrial urban society. This course explores the effect urbanization had upon America's social political and economic institutions and concludes with an examination of how the "revolution" in transportation and technology shaped the design of American cities.

HST 333. American Social History (3) Prerequisite: HST 201-202 or consent of instructor. The impact of social change on American life from colonial times to the present. An examination of changing concepts of ethnicity and racial identification, the growth of religious movements, the effect of industrialization on family life, the impact of urbanization on crime and violence, and the influences of movies and television on mass behavior.

HST 334. Slavery and Sectionalism (3) Prerequisite: HST 201 and 202 or consent of the instructor. A study of slavery as an intellectual and political problem in the United States with special attention to abolitionism, sectional differences in the 1820-1861 period, and the impact of slavery on the war effort of both the Union and the Confederacy.

HST 335. Diplomatic History of the United States (3) Prerequisite: HST 201-202 or consent of instructor. American diplomatic activities and foreign relations since 1775.

HST 336. Constitutional History of the United States (3) Prerequisite: HST 201-202 or consent of instructor. Development of the Constitution through decisions of Supreme Court; evolution of federal authority in relation to distribution of governmental power, society and economic life.

HST 337. History of American Thought (3) Prerequisite: HST 201-201 or consent of instructor. American thought from the colonial period to the present with emphasis on those ideas having lasting influences on American institutions.

HST 339. Economic History of the United States (3) Prerequisite: HST 201-202 or consent of instructor. An historical study of American agriculture, labor, industry, transportation, and banking with emphasis on the relation of the government to the economy.

HST 341. North Carolina 1524 to 1835 (3) Prerequisite: HST 201-202 or consent of the instructor. Political, economics and social development of North Carolina in the colonial federal period to the Constitution of 1835.

HST 342. North Carolina, 1835 to the Present (3) Prerequisite: HST 201-202 or consent of instructor. Political, economic and social development of North Carolina in the nineteenth and twentieth centuries.

HST 346. The Old South (3) Prerequisite: HST 201-202 or consent of instructor. The South from the colonial period to the Civil War with emphasis on political, economic, and social institutions distinctive to the South.

HST 347. The New South (3) Prerequisite: HST 201-202 or consent of instructor. Aftermath of Reconstruction, rise of the New South, effects of industrialism, continuation and decline of sectionalism.

HST 351. History of Canada (3) Prerequisite: HST 101-102 or HST 201-202 or consent of instructor. A brief survey of Canada under the French; development under British control; evolution of the Dominion; relations with the United States and British Commonwealth of Nations.

HST 360. History of China (3) Prerequisite: Any two of the following: HST 101, 102 or 103; or consent of the instructor. Survey of the history of China: the evolution of characteristic Chinese institutions and modes of thought from antiquity to the present within a wider framework of political, economic and cultural change; Chinese responses to

western imperialism in modern times; revolutionary transformation in modern contemporary China.

HST 361. History of Japan (3) Prerequisite: Any two of the following: HST 101, 102 or 103; or consent of instructor. Survey of Japanese history from the earliest recorded times to the present emphasizing Japan's development as a cultural daughter of China; Japanization of Chinese culture and unique aspects of Japanese civilization; the emergence of a modern economy and state economic bases of Japanese militarism-imperialism; developmental characteristics of Japanese capitalism.

HST 364. History of India (3) Prerequisite: HST 101, 102, 103, or consent of instructor. Survey of Indian history with emphasis on cultural, social, and intellectual developments from c. 2500 to the present.

HST 365. History of Modern East Asia (3) Prerequisite: HST 101-102 or consent of instructor. A survey of modern east Asian history from the mid-nineteenth century to the present with emphasis on the Asian response to western imperialism, institutional continuity and change, international relations, and movements toward independence and modernization. The course focuses on China, Japan and Korea with secondary attention to Southeast Asia in the post-World War II era.

HST 368. Latin American History (3) Prerequisite: An American or Western Civilization survey course or consent of instructor. The development of South America, Central America, and the Caribbean from the time of the pre-Conquest civilizations to the present.

HST 371. History of Africa (3) Prerequisite: HST 101-102 or consent of instructor. Historical survey of African cultures with emphasis on the establishment of colonial empires, Africa under colonial rule, and modern African independence movements.

HST 378. (GGY 378) Historic Preservation Planning (3) An applied research course which ideals with the procedures employed by federal, state, and local agencies in locating, recording, restoring, and preserving American architectural heritage and material cultural resources. Subjects examined include: survey, documentation, and planning; historic districts; adaptive use; funding; legislation; and organizational roles.

HST 380. Twentieth Century International Relations (3) Prerequisite: One of the following: HST 102, 103, 202, or consent of instructor. Historical analysis of the main techniques, goals, and practitioners of international relations from World War I to the present, stressing shifts in the balance of power, ideological competition, alliance systems, international organizations, peace movements, and new methods of conflict resolution.

HST 403. (530) Medieval Civilization (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. A study of medieval institutions and culture with special emphasis on feudalism, manorialism, and the religious system of the period.

HST 405. Political History of Middle Ages (3) Prerequisite: HST 101-102 or consent of instructor. A study of the political development of medieval Europe from the decline of the Roman Empire in West to the emergence of the modern period.

HST 407. (532) Europe in the Age of the Renaissance (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. Political, economic and social changes during the Renaissance, with special attention to the artistic and intellectual achievements of the age.

HST 409. (533) Europe in the Age of the Reformation (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. Causes and development of the Protestant Revolution and the Catholic Reformation with examination of the impact of these movements on the political, economic and social institutions of early modern Europe.

HST 411. (534) Europe: From Monarchy to Revolution (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. Modern Europe from the rise of absolute kings in the seventeenth century to the defeat of the Emperor Napoleon. Emphasis is placed on the wars to gain control of Europe and colonial empire, the development of capitalist finance and a global economy, and the decline of aristocracy, climaxing in the French Revolution and the age of Napoleon.

HST 413. (535) Europe: The Age of Industry and Empire (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. The origins and development of the industrial revolution in Europe; its effect on politics, population, urbanization and social class consciousness, the establishment of modern colonial empires in the nineteenth century and their place in the world economic order.

HST 415. (536) Europe and the Struggle for World Mastery (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. The rivalry of Europe's great powers leading to World Wars I and II: the causes, events, and results of those global conflicts; the ensuing political revolutions in the inter-war period; anticipations of decline of the European empires; the spread of democracy and self-determination to certain areas; and European cultural and scientific development in the first half of the twentieth century.

HST 417. (537) Europe Since 1945 (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. The revival of Europe after the Nazi period and its division by the Cold War; political, social, economic developments on both sides of the "Iron Curtain," decolonialization of Europe's empires; movements for political and economic integration; continuing revolutionary currents; Europe's place in contemporary world politics.

HST 420. Great Britain 1815-1914: The Victorian Age (3) Prerequisite: HST 101, 102 and completion of any university course work at the 300 level. An examination of British society from the conclusion of the Napoleonic Wars to the outbreak of World War I. Major themes considered will include the impact of industrialization and urbanization; the gradual democratization of British politics; the cultural aspects of "Victorianism;" the foundations of British international power; the expansion of the British Empire.

HST 441. (510) Colonial History of the U.S. (3) Prerequisite: HST 201, 202 and completion of any university course work at the 300 level. Formation and growth of American colonies to the conclusion of the French and Indian War (1763).

HST 443. (511) The American Revolution and Formation of the United States, 1763-1800 (3) Prerequisite: HST 201, 202 and completion of any university course work at the 300 level. Organization of the British Empire, events preceding the Revolution, the war for independence, Confederation era, drafting and ratification of the U.S. Constitution, politics of the new nation.

HST 445. (512) The Early United States Republic (3) Prerequisite: HST 201, 202 and completion of any university course work at the 300 level. Era from inauguration of Thomas Jefferson through Jacksonian democracy to the advent of the American Civil War.

HST 447. (513) The Civil War and Reconstruction (3) Prerequisite: HST 201, 202 and completion of any university course work at the 300 level. The American Civil War and Reconstruction of the South through 1877.

HST 449. (514) Robber Barons and Reformers, the U.S., 1877-1917 (3) Prerequisite: HST 201, 202 and completion of any university course work at the 300 level. The rise of American industry and the Populist-Progressive responses to urbanization and industrialization.

HST 451. (515) Twentieth Century America (3) Prerequisite: HST 201, 202 and completion of any university course work at the 300 level. A study of the United States from 1917 to 1950 with emphasis upon World War I, the Roaring twenties, Depression and New Deal, World War II, and the origins of the Cold War.

HST 452. (516) America Since 1950 (3) Prerequisite: HST 201, 202 and completion of any university course work at the 300 level. Developments in American politics, cultural life, civil rights and foreign policy from the time of the Truman administration to the present, including the Cold War, Korea, the Vietnam War, Watergate, the energy crisis, the nuclear arms race, feminism, and the "Me Decade."

HST 470. (570) Introduction to Applied History (3) Prerequisite: HST 201, 202 and completion of course work at the 300 level in history. A research seminar designed to acquaint students with the various sectors of applied history (government/public policy, archives and information management, cultural resource management, media and research organizations), and with the research methodologies peculiar to the field. Field trips, guest speakers and a sponsored research methodologies peculiar to the field. Field trips, guest speakers and a sponsored research project provide practical experience for participants.

HST 480. (517) Topics in Afro-American History (3) Prerequisite: HST 201, 202 and completion of any university course work at the 300 level. An intensive historical study of selected themes and events in the history of Afro-Americans from the origins of the Atlantic slave trade to the present. Examples of specific topics are: Slavery in the

Americas, Blacks and the American Military Tradition, Black Folklore, the Harlem Renaissance and Biographies of Great Afro-American Leaders.

HST 482. (576) Community Studies (3) Prerequisite: HST 201, 202 and completion of any university course work at the 300 level. Provides an introduction to the methodological and practical application of community studies. Topics include: oral history, folklore, ethnography, museum and archival collection and management and historic preservation. Students will select a research project in cooperation with one of the local museums, historical societies, the public library or another governmental agency.

HST 484. (584) American History Through Film (3) Prerequisite: HST 201, 202 or consent of instructor. Analysis of interpretations of American history as presented in documentary and dramatic films. Two related themes are stressed: the way Hollywood films and television programs depict contemporary views of events in American history as well as the way films reveal changing attitudes and values in American popular culture.

HST 490. Senior Seminar (3) Prerequisite : Senior standing. An exploration of historiography and the methodologies of historical research, with an emphasis on the writing history.

HST 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson. Students should have a 2.0 grade point average.

HST 495. Seminar (3) Prerequisite: HST 101, 102, or 201, 202 as appropriate or consent of instructor. Intensive study of historical topic not regularly covered in other courses.

HST 497. (597) Topics in Asian History (3) Prerequisite: HST 103 and relevant university course work at the 300 level. Intensive study of selected themes and events in Asian history not regularly covered in other courses. Examples of specific topics include: "The Chinese Revolution," "Meiji Japan," "Gandhian Thought," "The Nationalist Movements."

HST 498. Internship in Applied History (3) Prerequisite: HST 101, 102, 201, 202, 377 and at least one other history course of relevant content. Academic training and practical field experience through work with a private historical agency in the three county area in and around Wilmington. Faculty supervision and evaluation of all study and on-site activity. Open to students of junior or senior standing who have been approved by the Advisory Committee for the Intern Program.

HST 499. Honors Work in History (2-3) Prerequisite: Senior standing. Consent of instructor or department chairperson. Individual study of honors students.

For 292 and 492; 294 and 494; see explanations on p. 90.

MARINE BIOLOGY

(See Biological Sciences)

MATHEMATICAL SCIENCES

Dr. D. Smith, *Chairperson.* Dr. Adhar, Dr. Berman, Dr. Bianco, Dr. J. Brown, Mr. T. Brown, Dr. Chang, Dr. Dankel, Dr. Deck, Dr. DeSouza, Dr. Etheridge, Dr. Feng, Dr. Frierson, Dr. Greim, Dr. Gurganus, Dr. Herbst, Dr. Herman, Dr. Kambule, Dr. Karlof, Dr. Kasala, Dr. Lugo, Mr. Lupton, Dr. McLaurin, Dr. Nelson, Dr. Norris, Dr. Sadek, Dr. Saksena, Dr. H. Smith, Dr. Spackman, Ms. Spike, Ms. Wager, Dr. Whipkey, Dr. Yan.

Requirements for a Concentration in Computer Sciences for the B.S. degree: Core Requirements: CSC 121, 122, 231, 241, 242, 332, 334, 360; MAT 161, 162, 335; STT 262, 362. In addition to the core requirements there are three options below, one of which a student must complete in order to fulfill the degree requirements. With careful planning and advising, a student may complete a second major in an area of application.

Option 1.

This option is designed for students interested in applications of computer science to the mathematical or physical sciences.

CSC 325, 425, 460; MAT 261, 361; PHY 201, 202; and two courses selected from CSC 420, MAT 418, 419, 435, 436, 471, and MAT/STT 465.

Option 2.

This option emphasizes the study of computers as systems. Students selecting this option are prepared for careers involving systems analysis or systems integration, or for graduate studies in computer sciences.

CSC 325 or MAT 361; CSC 342, 410, 442, 460; MAT 261; MAT 336 or 375; PHY 201, 202.

Option 3.

This option is designed for students who intend to use the computer as a tool for industrial or business and information systems applications.

CSC 455; six additional hours at the 300 or 400 level in Computer Science, Mathematics or Statistics, approved by the advisor; ACG 201, 203; ECN 221, 222; FIN 335; MGT 350; MKT 340; PDS 314.

A grade of "C" or better must be earned on each required computer science course; a quality point average of (C) 2.0 or better must be earned on all other courses required for the concentration.

Note: Students interested in the degree program in computer science are encouraged to begin their mathematics study with Calculus I (MAT 161). Initial placement in mathematics is based on high school background and the Mathematics Placement Test. Students not prepared for calculus in their first semester should begin with MAT 115 or 111-112, as appropriate. Students who place into MAT 162 are advised to take the Advanced Placement Test to receive college credit for MAT 161.

Computer Science Course Descriptions

(Department of Mathematical Sciences)

CSC 105. Introduction to Computing and Computer Applications (3) Basic elements of computing machines and computing processes. Computer hardware, algorithms, programming languages, some applications - e.g., word processing, database man-

agement, communications - and various social and technical issues of computer technology. Introduction to programming in some language and familiarization with a variety of computer systems.

CSC 107. Programming Laboratory - SNOBOL (1) Prerequisite: CSC 105 or consent of instructor. Elementary programming techniques for character-string processing and text editing. Emphasis will be placed on the pattern matching facilities of SNOBOL. Two hours each week.

CSC 111. Introduction to Computer Programming Using FORTRAN (3) Prerequisite: MAT 111 or 115. Algorithms and computer systems, data representation, survey of computer applications, elementary programming techniques in FORTRAN, debugging and verification of programs. Three lecture and one laboratory hour each week.

CSC 112. Introduction to Computer Programming (3) Prerequisite: MAT 111 or 115 or equivalent preparation. An introduction to programming in a high-level language for students who are not computer science majors. Algorithms, computer systems, data representation, survey of computer applications, elementary programming techniques, debugging and verification of programs. The language to be used will be specified in the schedule of classes. Three lecture and one laboratory hour each week.

CSC 121. Introduction to Computer Science I (3) Prerequisite: MAT 111 or 115, or equivalent. Problem solving methods and algorithms in a modern high-level programming language. Introduces one or more programming environments. Emphasis on programming style and the design, coding, and testing of complete programs. A grade of "C" or better is required for taking any course for which CSC 121 is prerequisite. Three lecture and one laboratory hour each week.

CSC 122. Introduction to Computer Science II (3) Prerequisite: CSC 121. Continuation of CSC 121 with emphasis on character and string processing, elementary data structures, computer graphics, recursion, and use of software tools. A grade of "C" or better is required for taking any course for which CSC 122 is prerequisite. Three lecture and one laboratory hour each week.

CSC 125. Computer Language - FORTRAN (2) Prerequisite: CSC 121. Elementary and intermediate programming techniques in FORTRAN. Computer solution to numeric problems. No credit after completion of CSC 111.

CSC 126. Computer Language - PL/1 (2) Prerequisite: CSC 111 or 121. Elementary and Intermediate programming techniques in PL/1. Computer solution to numeric problems and non-numeric problems.

CSC 127. Computer Language - COBOL (2) Prerequisite: CSC 111 or 121. Elementary and intermediate programming techniques in COBOL. Computer solution to business oriented problems.

CSC 128. Interactive Personal Computing (2) Prerequisite: CSC 111 or 121. Elementary programming techniques using interactive services. The use of personal computers.

CSC 207. Language Processing (3) Prerequisite: CSC 107. The role of computers as tools in linguistic studies; literary applications of computing: verbal indexes, concordances, authorship controversies; computational linguistics; algorithms for manipulating character strings using the SNOBOL programming language.

CSC 231. (MAT 231) Discrete Structures (3) Corequisite: CSC 121. Introduction to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary graph theory and applications to computer science.

CSC 241. Introduction to Computer Systems & Assembly Languages (3) Prerequisite: CSC 121. Introduction to computer structure. Registers, machine instructions and formats; number and character representation; execution control and addressing techniques. Basic input-output programming; files; procedures, segmentation, and linkage, recursion and re-entrancy; floating-point and string operations. Symbolic and machine-level debugging.

CSC 242. Digital Logic and Computer Organization (3) Prerequisite: CSC 231 and 241. Study of computer system organization. Combinational and sequential circuit analysis and synthesis; medium and large-scale integrated circuits. Register-transfer language and microprogramming; instruction fetch and execution; flow of control. Input-output, controllers, interrupts, communications and codes. Introduction to computer networks.

CSC 305. Computer Graphics (3) Prerequisite: CSC 122, MAT 261. Corequisite: MAT 335. Detailed study of two-dimensional graphics and introduction to issues from three-dimensional graphics. Graphics hardware and applications. Study of graphics primitives in two dimensions: lines, attributes, windowing, clipping, transformations. Overview of other topics: three-dimensional transformations, modeling, color science, rendering.

CSC 325. (MAT 325) Numerical Algorithms (3) Prerequisite: CSC 111 or 121, MAT 162. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized.

CSC 332. Data Structures (3) Prerequisite: CSC 122 and 231. Study of basic data structures and their applications. Lists and trees; graph algorithms; internal and external sort and search techniques; hashing; analysis and design of efficient algorithms; file processing techniques.

CSC 334. Programming Languages (3) Prerequisite: CSC 332. Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures.

CSC 342. Operating Systems (3) Prerequisite: CSC 242 and 334. Study of supervisory programs. System services and file systems; CPU scheduling; memory management; virtual memory; disk scheduling. Deadlock characterization, prevention, and avoidance; concurrent processes; semaphores; critical sections; synchronization. Distributed systems and communication protocols.

CSC 350. Computer Components and Circuits (3) Prerequisite: MAT 162 and PHY 202. Introduction to the basic elements of electricity, electronics, and semi-conductor device theory as applied to computer components. Voltage, current, Ohms's law; capacitance, inductance, reactance, impedance, and analysis of AC circuits; transmission lines; transistors, flip-flops, and small-scale integrated circuits; medium and large-scale integrated circuits and the microprocessor.

CSC 360. Formal Languages and Computability I (3) Prerequisite: CSC 332. An introduction to theoretical computer science. Topics include regular expression and finite state concepts; basic automata theory; formal grammars and languages; computability; Turing machines; elementary recursive function theory.

CSC 365. Switching Theory (3) Prerequisite: CSC 231. Switching algebra, gate network analysis and synthesis, Boolean algebra, combinational circuit minimization, sequential circuit analysis and synthesis, sequential circuit state minimization, hazards and races, and elementary number systems and codes.

CSC 410. Compiler Construction (3) Prerequisite: CSC 360. Review of program language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design. Use of compiler writing languages and bootstrapping.

CSC 420. Simulation Techniques (3) Prerequisite: CSC 231 and STT 362. Introduction to simulation and comparison with other techniques. Discrete simulation models, and introduction to, or review of, queueing theory and stochastic processes. Comparison of discrete change simulation languages. Simulation methodology including generation of random numbers and variates, design of simulation experiments for optimization, analysis of data generated by simulation experiments, and validation of simulation models and results. Selected applications of simulation.

CSC 425. (525; Mathematics 425/525) Numerical Analysis (3) Prerequisite: MAT 325, 335 and 361. Introduction to the theoretical foundations of numerical algorithms. Solution of linear systems by direct methods, least squares, minimax, and spline approximations; polynomial interpolation; numerical integration and differentiation; solution of non-linear equations; initial value problems in ordinary differential equations. Error analysis. Certain algorithms are selected for programming.

CSC 432. (532) Advanced Data Structures (3) Prerequisite: CSC 332 and MAT 335. Advanced topics in data structures, with emphasis on algorithmic complexity. Recursive list manipulations; paradigms of search; biconnectivity, strong connectivity, and

precedence relations in graphs; pattern matching; search trees; memory management and secondary storage; optimal techniques for sorting, merging, and selection.

CSC 442. Advanced Computer Organization (3) Prerequisite: CSC 342. Advanced topics in computer organization and architecture. Readings from the literature contrasting alternative organization schemes as they affect systems development. Seminar format.

CSC 450. Software Engineering (3) Prerequisite: CSC 332. Study of the design and production of large and small software systems. Topics include systems engineering, software life-cycle and characterization; use of software tools.

CSC 455. Data Base Management Systems (3) Prerequisite: CSC 332. Introduction to data base concepts, data independence, logical and physical views of data base systems. Data models: hierarchial, network, and relational. Data description languages, query functions, relational algebra.

CSC 460. Formal Languages and Computability II (3) Prerequisite: CSC 360. Advanced topics in theoretical computer science. Theory of computation; languages and syntactic analysis; computational complexity and NP -completeness.

CSC 475. Topics in Computer Science (3) Prerequisite: Senior standing and permission of instructor. Topics of current interest in computer science not covered in existing courses.

CSC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

CSC 495. Seminar in Computer Science (1) Prerequisite: Junior or senior standing and consent of instructor.

CSC 499. Honors Work in Computer Science (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492; 294 and 494, see explanation on p. 90.

Requirements for Concentration in Mathematics: Core requirements: MAT 161-162, 261, 275, 335, 336, 375, and either 366 or 411; CSC 121; STT 262-362; PHY 201-202; and at least nine hours at the 300 or 400 level approved by the advisor in an area related to mathematics. In addition to the core requirements there are three options listed below, one of which a student must complete to fulfill the degree requirements.

I. B.A. degree teacher certification in Mathematics: MAT 345, 346. The education and psychology courses required for teacher certification satisfy the core requirements of at least nine hours at the 300 or 400 level in an area related to mathematics.

II. B.A. degree in Mathematics: Nine additional hours of mathematics courses at the 300 or 400 level approved by the advisor.

III. B.S. degree in Mathematics: MAT 361; one of MAT 367, 411 (if not used for the core requirement), 412 or 415; 495; a mathematical modeling course, and six additional hours of mathematics or statistics courses at the 300 or 400 level approved by the advisor.

The modeling requirement may be fulfilled by taking any of: MAT 419, 436 or MAT/STT 465. (Note: Some of these courses require additional prerequisites.)

A "C" (2.0) or better average is required for mathematics courses at the 300-400 level.

Note 1. Collateral courses required in the three programs in mathematics must be chosen from departmentally approved courses which, together with the student's mathematics courses, comprise a coherent program. Normally a proposed program of study should be submitted to the department for approval prior to the beginning of the student's junior year.

Note 2. Students interested in a degree program in mathematics are encouraged to begin their mathematics study with Calculus I (MAT 161). Initial placement in mathematics is based on high school background and the Mathematics Placement Test. Students not prepared for calculus in their first semester should begin with MAT 115 or 111-112, as appropriate. Students who place into MAT 162 are advised to take the Advanced Placement Test to receive college credit for MAT 161.

Mathematics Course Descriptions

(Department of Mathematical Sciences)

In general, mathematics is sequential in nature. Therefore, successful mastery of each course in sequence is necessary in order to be adequately prepared for the next course. In light of this, it is strongly recommended that students obtain a grade of at least "C" before registering for the next course in a sequence. With special permission a student can repeat a course in which a "D" grade is obtained. Sequences offered where this guideline is applicable are MAT 111-112, MAT 111-151, MAT 111-112-151-152, MAT 115-151-152, MAT 111-112-161-162-261, MAT 115-161-162-261.

MAT 100. Foundations of Algebra (0) Designed primarily for students not prepared for MAT 111 who need additional manipulative skills, particularly in algebra. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

MAT 101-102. College Mathematics for The General Student (3-3) A survey of mathematical ways of thinking designed for the general student. Not intended as preparation for further mathematics courses. Cannot be substituted for MAT 111, 112, or 115. Emphasis on concepts and applications rather than on manipulative skills. Introduces logic, number systems, algebra, geometry, probability, statistics, computers, calculus and the history of mathematics. No credit granted after the completion, with a grade of "C" or better, of a mathematics course numbered 141 or higher.

MAT 111. Precalculus I (3) Prerequisite: Satisfactory performance on the UNCW mathematics placement test. A preparatory course for further mathematics courses. Equations and inequalities; polynomial, exponential and logarithmic functions; graphs; systems of equations and inequalities. No credit granted after the completion, with a grade of "C" or better, of MAT 115 or mathematics course numbered 151 or higher.

MAT 112. Precalculus II (3) Prerequisite: MAT 111 or equivalent or satisfactory performance on the UNCW mathematics placement test. Topics from trigonometry and algebra. Includes trigonometric functions, identities and equations; zeros of polynomials, mathematical induction; sequences. No credit granted after the completion, with a grade of "C" or better, of MAT 115 or a mathematics course numbered 152 or higher.

MAT 115. Elementary Mathematical Analysis (3) Prerequisite: Satisfactory performance on the UNCW mathematics placement test. (This is usually equivalent to an SAT score above 500 in math, and at least a "B" average in algebra I and II, geometry, advanced algebra and trigonometry.) A one-semester treatment of the topics listed under MAT 111 and MAT 112. No credit granted after the completion, with a grade of "C" or better of MAT 111, MAT 112, or a mathematics course numbered 151 or higher.

MAT 141-142. Basic Concepts of Mathematics (3-3) Real number system and related operations, units of measurement, graphs and data analysis, geometry, logic and sets, and introduction to calculators and computers.

MAT 151-152. Basic Calculus with Applications (3-3) Prerequisite: MAT 111 or 115 for 151; MAT 112 or 115 and 151 for 152. Differentiation and integration of algebraic and certain transcendental functions, partial differentiation, sequences and series. Greater emphasis is placed on techniques and applications than on theory and derivations. This sequence is not intended for students who need mathematics beyond calculus.

MAT 161-162. Calculus with Analytic Geometry (4-4) Prerequisite: MAT 112 or 115 or equivalent preparation in algebra and trigonometry. Treatment of calculus of a single variable intended for students in the mathematical and natural sciences. Functions and limits; differentiation with applications including maxima and minima, related rates, differentials and approximations; theory of integration with applications; equations of curves including the conic sections; transcendental functions; infinite sequences and series. Three lecture and two hour laboratory hours each week.

MAT 231. (CSC 231) Discrete Structures (3) Corequisite: CSC 121. Introduction to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary minimization; relations; principles of recursion and induction; elementary graph theory and applications to computer science.

MAT 261. Multivariate Calculus (4) Prerequisite: MAT 162. Calculus of functions of several variables. Polar coordinates and parametric equations, solid analytic geometry, partial derivatives, multiple integrals. Three hours lecture and two hours laboratory each week.

MAT 275. Axiomatic Systems (3) Prerequisite: MAT 161. An introductory treatment of propositional and predicate logic and methods of proof. Elementary set theory, relations, functions and topics from axiomatic systems. Precision in the use of mathematics as a language and rigor in proofs are emphasized. Students present and discuss appropriate material to gain experience in communicating mathematics.

MAT 325. (CSC 325) Numerical Algorithms (3) Prerequisite: CSC 111 or 121, MAT 162. An introduction to the numerical algorithms fundamental to scientific computer work.

Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of non-linear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized.

MAT 335. Linear Algebra and Matrices (3) Prerequisite: MAT 162. Systems of linear equations, vector spaces, algebra of matrices and linear transformations, determinants, applications.

MAT 336. Modern Algebra (3) Prerequisite: MAT 275, 335 or consent of instructor. Equivalence relations; groups, subgroups, normal subgroups, quotient groups; rings, subrings, ideals, quotient rings; rings of integers, fields of rational, real and complex numbers, polynomial rings.

MAT 345. Modern College Geometry (3) Prerequisite: MAT 275 or consent of instructor. Use of elementary methods in advanced study of the triangle and circle, special emphasis on solving original examples, comparison of Euclidean and non-Euclidean and projective geometries.

MAT 346. Historical Development of Mathematics (3) Corequisite: MAT 275 or consent of instructor. Development of mathematics from earliest systems to present century. Personalities involved with the contributions of each. A problem-study approach to give the student some training in research.

MAT 361. Differential Equations (3) Prerequisite: MAT 261. Theory , methods of solution, and applications of ordinary differential equations with emphasis on first order equations and linear equations. Additional topics from power series solutions, Laplace transforms, linear systems, and numerical methods.

MAT 366. Advanced Calculus I (3) Prerequisite: MAT 261; corequisite: MAT 335. A thorough study of differential and integral calculus of vector-valued functions of a vector variable. Jacobians, inverse and implicit function theorems, change of variables in multiple integrals; theorems of Green, Gauss, and Stokes; applications.

MAT 367. Advanced Calculus II (3) Prerequisite: MAT 366. Further topics in analysis and their applications. Infinite series, power series, uniform convergence; Fourier series and orthogonal functions; Fourier and Laplace transforms; elementary applications to differential equations and boundary value problems. Introduction to complex variables and residue theory.

MAT 375. Combinatorics (3) Prerequisite: STT 262 and either MAT 275 or CSC/MAT 231. Techniques for counting configurations of objects. Recurrence relations; principle of inclusion-exclusion; graphs, trees, and circuits. Additional topics chosen from Polya's Theorem, generating functions, and network flows.

MAT 411-412. (511-512) Real Analysis (3-3) Prerequisite: MAT 261, 275, and 335. Advanced study of convergence, continuity, differentiation, and integration in Euclidean space. The real number system, basic topology of Euclidean spaces; sequences and

series; continuity, differentiation of vector-valued functions, uniform continuity; theory of integration; implicit and inverse function theorems, Stokes' Theorem.

MAT 415. (515) Introduction to Complex Variables (3) Prerequisite: MAT 367 or 411. A first study of functions of a complex variable. Algebra of complex numbers, elementary functions with their mapping properties; analytic functions; power series; integration, Cauchy's Theorem, Laurent series and residue calculus; elementary conformal mappings and boundary value problems.

MAT 418-419. Applied Analytical Methods (3-3) Prerequisite: MAT 361 and 367. A thorough treatment of the solution of initial and boundary value problems of partial differential equations. Topics include classification of partial differential equations, the method of characteristics, separation of variables, Fourier analysis, integral equations and integral transforms, generalized functions, Green's functions, Sturm-Liouville theory, approximations, numerical methods.

MAT 421. (521) Number Theory I (3) Prerequisite: MAT 336. Use of algebraic techniques to study arithmetic properties of the integers and their generalizations. Primes, divisibility and unique factorization in integral domains; congruences, residues and quadratic reciprocity; diophantine equations and additional topics in algebraic number theory.

MAT 425. (525; CSC 425/525) Numerical Analysis (3) Prerequisite: MAT 325, 335, and 361. Introduction to the theoretical foundations of numerical algorithms. Solution of linear systems by direct methods; least squares, minimax, and spline approximation; polynomial interpolation; numerical integration; and differentiation; solution of nonlinear equations; initial value problems in ordinary differential equations. Error analysis. Certain algorithms are selected for programming.

MAT 435. (535) Linear Programming (3) Prerequisite: CSC 111 or 121 and MAT 335. Methods and applications of optimizing a linear function subject to linear constraints. Theory of the simplex method and duality; parametric linear programs; sensitivity analysis; modeling and computer implementation.

MAT 436. (536) Discrete Optimization (3) Prerequisite: MAT 435. Theory and applications of discrete optimization algorithms. Transportation problems and network flow problems; integer programming; computer implementation.

MAT 451. (551) Topology I (3) Prerequisite: MAT 275 and 336. A study of the basic concepts of general topology. Metric spaces, continuity, completeness, compactness, connectedness, separation axioms, product and quotient spaces; additional topics in point-set topology.

MAT 457. (557) Differential Geometry (3) Prerequisite: MAT 366 or 411. Theory of curves and surfaces in Euclidean space. Frenet formulas, curvature and torsion, arc length; first and second fundamental forms, Gaussian curvature, equations of Gauss and Codazzi, differential forms, Cartan's equations; global theorems.

MAT 463. (563) Ordinary Differential Equations (3) Prerequisite: MAT 335 and 361. Advanced study of ordinary differential equations. Existence and uniqueness; systems

of linear equations, fundamental matrices, matrix exponential; series solutions, regular singular points; plane autonomous systems, stability and perturbation theory; Sturm-Liouville theory and expansion in eigenfunctions.

MAT 465. (565; STT 465/565) Applied Probability (3) MAT 261 and STT 362. The formulation, analysis and interpretation of probablistic models. Selected topics in probability theory. Conditioning, Markov chains, and Poisson processes. Additional topics chosen from renewal theory, queuing theory, Gaussian processes, Brownian motion, and elementary stochastic differential equations.

MAT 471. Projects in Mathematical Modeling (3) Prerequisite: Either CSC 420 or MAT 435 or 461, or MAT/STT 465. Techniques of problem recognition and formulation, and mathematical solution and interpretation of results. Each student will construct a mathematical model under the supervision of the Applied Mathematics Advisory Committee and report on the investigation in written and oral form. Seminar format.

MAT 475. Topics in Mathematics (3) Prerequisite: Junior or senior standing and permission of instructor. Topics of current interest in mathematics not covered in existing courses.

MAT 481. (581) Introduction to Mathematical Logic (3) Prerequisite: MAT 275 and 336. The formal study of truth and provability. Propositional calculus; predicate calculus. Godel's completeness theorem, applications to formal number theory and incompleteness. Additional topics chosen from areas such as undecidability or nonstandard analysis.

MAT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of the department chairperson, a "B" or better average on all mathematics courses taken.

MAT 495. Seminar in Mathematics (1-3) Prerequisite: Junior or senior standing and consent of instructor. Investigation of and an oral report on a mathematical topic under the direction of a faculty member. Within the first four weeks of the semester enrolled, the student must submit an outline of the proposed work to the Mathematics Advisory Committee for approval.

MAT 499. Honors Work in Mathematics (2-3) Prerequisite: Eligibility for honors program. Individual study for honor students.

For 292 and 492; 294 and 494, see explanations on p. 90.

Statistics Course Descriptions

(Department of Mathematical Sciences)

STT 205. Introduction to Statistics with Applications in the Social Sciences (3) Prerequisite: MAT 101, 111, or 115. (Designed for students majoring in the social sciences.) Graphical and numerical methods for univariate data; bivariate data organization and measures of association; contingency table analysis; sampling distributions; estimation and hypothesis testing; introduction to linear regression and correlation.

STTL 205-51. Statistics Laboratory (1) Prerequisite or corequisite: STT 205 or consent of instructor. Computers are used to illustrate the descriptive and inferential methods of STT 205 and 215. Emphasis is on the use of existing statistical packages. No computer programming knowledge is required. Two hours each week.

STT 210. Introduction to Statistics with Applications in the Health Sciences (3) Prerequisite: MAT 111. Collection, tabulation and graphical representation of data. Measures of location and variation, measures of association and chi-squared distribution, correlation and regression, binomial, Poisson and normal distributions, estimation and tests of hypotheses. Health care statistics, elementary computer skills in analysis of data and interpretation of computer printout.

STT 215. Introduction to Statistics with Applications in the Natural Sciences (3) Prerequisite: MAT 111 or 115. (Designed for students majoring in the natural sciences.) Graphical and numerical descriptive methods; random variables and probability distributions; estimation and hypothesis testing (large and small samples); linear regression and correlation; one-way analysis of variance; contingency tables and goodness of fit.

STTL 215-51. Statistics Laboratory (1) Prerequisite or corequisite: STT 215 or consent of instructor. Computers are used to illustrate the descriptive and inferential methods of STT 205 and 215. Emphasis is on the use of existing statistical packages. No computer programming knowledge is required. Two hours each week.

STT 250. Introduction to Sampling Techniques (3) Prerequisite: Any introductory statistics course such as STT 205, 210, 215, PDS 217, or PSY 225. An introduction to sampling techniques intended for students in the social, behavioral, natural or health sciences. Simple random sampling, stratified random sampling, cluster sampling, and ratio and regression estimation.

STT 262. Discrete Probability and Random Variables (2) Prerequisite: MAT 151 or 161. An introduction to random variables and probability distributions in the discrete case. Topics include descriptive statistics; elementary combinatorics; discrete sample spaces and probability; mathematical expectation; Tchebyshev's Theorem; conditional probability and independence; Bayes' Theorem; joint, conditional and marginal distributions; common discrete probability models. Introduction to continuous random variables.

STT 362. Continuous Probability and Statistics (2) Prerequisite: STT 262 and MAT 152 or 162. Continuous random variables and their distributions. Topics include functions of random variables; estimation and tests of hypotheses; regression and correlation; least square curve fitting.

STT 411. (511) Design of Experiments and Analysis of Variance (3) Prerequisite: Any elementary statistics course. Review of elementary statistics; design of experiments including completely randomized, randomized block, factorial, split-plot, and repeated measures designs; analysis of variance; non-parametric alternative methods of analysis. Statistical software packages will be used as appropriate in problem solving.

STT 412. (512) Applied Regression and Correlation (3) Prerequisite: Any elementary statistics course. Review of elementary statistics; linear and multiple regression; correlation. Statistical software packages will be used as appropriate in problem solving.

STT 430. (530) Introduction to Non-Parametric Statistics (3) Prerequisite: STT 362. Theory and methods of non-parametric statistics in the one-and two- sample problems and their comparisons with standard parametric procedures. Non-parametric tests for comparing more than two samples; tests of randomness and independence.

STT 440. (540) Linear Models and Regression Analysis (3) Prerequisite: MAT 261 and 335 and STT 362. Theoretical introduction to the general linear model and it application to simple linear regression and multiple regression. Estimation and hypothesis testing of model coefficients; residual analysis; analysis of covariance.

STT 465. (565; MAT 465/565) Applied Probability (3) Prerequisite: MAT 261 and STT 362. The formulation, analysis and interpretation of probabilistic models. Selected topics in probability theory. Conditioning, Markov chains, and Poisson processes. Additional topics chosen from renewal theory, queuing theory, Gaussian processes, Brownian motion, and elementary stochastic differential equations.

STT 466-467. (566-567) Mathematical Statistics (3-3) Prerequisite: MAT 261 and STT 362. A rigorous introduction to mathematical statistics. Univariate and multivariate probability distributions; conditional and marginal distributions; theory of estimation and hypothesis testing; limiting distributions and the central limit theorem; sufficient statistics and the exponential class of probability density functions.

STT 475. Topics in Statistics (3) Prerequisite: Senior standing or permission of instructor. Topics of current interest in statistics not covered in existing courses.

STT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of the department chairperson, and a "B" or better average on all mathematical sciences courses taken.

STT 499. Honors Work in Statistics (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

PHILOSOPHY AND RELIGION

Dr. Megivern, *Chairperson.* Dr. Altrichter, Dr. Amon, Dr. Conser, Dr. Gauthier, Dr. Habibi, Dr. McGowan, Dr. Schmid, Dr. Shinn, Dr. Turrisi, Dr. Wilson.

Requirements for a Concentration in Philosophy and Religion for the B.A. degree:

I. B.A. degree with emphasis in Philosophy: P&R 101, 103, 110, 115, 201, 202, 400, and 15 additional hours including at least nine at the 300-400 level.

II. B.A. degree with emphasis in Religion: P&R 101, 103, 110, 125, 230, 232, 400; two courses from 235, 236, 238, 240, 245, 246, 247, or 248; and nine additional hours at the 300-400 level.

Philosophy Course Descriptions

(Department of Philosophy and Religion)

P&R 101. Invitation to Philosophical Thinking (3) An introduction to various philosophers and philosophical problems from historical, critical, and other perspectives.

P&R 110. Introduction to Logic (3) Introduction to the principles of logic including the rules of deduction, the categorical syllogism, induction, and fallacies. Initiation in computer logic programs.

P&R 115. Introduction to Ethics (3) An introduction to fundamental principles, theories, and problems in ethics.

P&R 201. History of Western Philosophy I (3) A survey of Western philosophical thought in ancient and medieval times. Emphasis on the Greek origins of the philosophical tradition. Readings from the Pre-Socratics, Plato, Aristotle, Roman philosophy and such Christian thinkers as Augustine and Thomas Aquinas.

P&R 202. History of Western Philosophy II (3) A survey of Western philosophical thought from the beginning of the modern era to the present. Emphasis on the rationalist and empiricist traditions. Readings from such philosophers as Descartes, Spinoza, Locke, Hume, Kant and Russell.

P&R 205. American Philosophy (3) A survey of American philosophical thought from colonial times to the present. Readings from such American thinkers as Jonathan Edwards, the Federalist authors, Thoreau, James, Dewey and Quine.

P&R 211. Philosophy of Human Nature (3) An effort to clarify the meanings of man as he presents himself in our contemporary world; oriented toward a theory of education and of psychology.

P&R 213. Existentialism (3) An introduction to major themes in existential thought such as freedom, authenticity, death of God, the meaning of life. Primary source readings from existential authors, e.g., Kierkegaard, Nietzsche, Heidegger, Sartre, Marcel.

P&R 215. Bioethics (3) Examination of the principles and problems in the application of ethical theory to medical and research practice.

P&R 216. Business Ethics (3) An examination of the principles and problems in the application of ethical theory to administrative and management practice.

P&R 218. Symbolic Logic (3) Fundamentals of an axiomatic logical system, including both the propositional calculus and the predicate calculus, consistency and completeness proofs, and mathematical induction.

P&R 220. Philosophy & Science Fiction (3) A survey of the major philosophical themes explored in contemporary science fiction. Topics covered include the nature and limits of science and technology, human nature, and the viability of alternative political ar-

rangements. The emphasis will be on learning to identify the philosophical themes that underlie much of contemporary science fiction and to use these to develop a better understanding of the modern world. Readings will include both fiction and contemporary philosophy.

P&R 302. Plato (3) Prerequisite: P&R 101 or 201. Study of the Dialogues of Plato. Analysis of texts; contemporary interpretations.

P&R 303. Aristotle (3) Prerequisite: P&R 101 or 201. An examination of Aristotle's philosophy through selected texts, supplemented with contemporary criticisms. Aristotle's criticisms of Plato; problems of interpretation.

P&R 305. Medieval Philosophy (3) A survey of Islamic, Jewish and Christian philosophical thought in medieval times. Readings from such thinkers as Augustine, Avicenna, Averroes, Maimonides and Thomas Aquinas.

P&R 310. (PLS 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or the consent of instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include: natural law; historical, analytical and sociological jurisprudence; idealism, utilitarianism and legal realism; equity, justice, precedent, custom and law, and the relation of law and morality.

P&R 313. Social and Political Philosophy (3) Prerequisite: P&R 101, 115, or consent of instructor. An exploration of philosophical issues and concepts central to an understanding of social and political life; e.g., function and cause, justice, liberty, equality, societal facts and laws, utopias, reason and political argument, political obligation and the public interest.

P&R 316. The Philosophy of Art (3) Prerequisite: P&R 101 or consent of instructor. Investigation and exploration into both traditional and contemporary theories regarding the philosophy of art and its associated problems. Visual Arts, such as painting, sculpture, film, etc., will be examined.

P&R 317. Epistemology (3) Prerequisite: P&R 101 or 201-202. Fundamental issues in theory of knowledge: nature of knowledge; reasoning, judgement; truth, certainty and probability.

P&R 318. Metaphysics (3) Prerequisite: P&R 101 or 201-202. Fundamental issues and positions concerning the nature of reality: theories of being, substance, causality.

P&R 320. Philosophy of Mind (3) Prerequisite: P&R 101 or consent of instructor. Selected readings drawn from classical and/or contemporary sources bearing on problems of the self, such as the issue of personal identity and the concept of a person, the problem of the relation of mind and body and the question of the nature of consciousness.

P&R 340. Philosophy of Religion (3) Prerequisite: P&R 101. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove

the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism.

P&R 345. Philosophy of Science (3) Prerequisite: P&R 101 or consent of instructor. Fundamental issues in the philosophy of science; the nature of scientific method; modes of verification and the role of paradigms.

P&R 360. Philosophy of Evolution (3) Prerequisite: P&R 101 or consent of instructor. Examination of philosophical issues found in the study of evolution: origins of the theory; impact on science; methodology of Darwinian and contemporary evolutionary studies; concepts of species, natural selection and adaptation and its mechanisms; application of evolutionary theory of human culture; and debates over creationism and sociobiology.

P&R 400. Colloquium for Majors (3) Prerequisite: Junior or senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors in junior or senior year; open to qualified non-majors.

P&R 401. The Philosophy of Immanuel Kant (3) Prerequisite: P&R 101 or 202. An examination of the thought and influence of Kant in his three great critiques, especially the first, the Critique of Pure Reason, as well as in his Groundwork of the Metaphysics of Morals.

P&R 405. Contemporary Philosophical Thought (3) Prerequisite: P&R 101 or 202. Primary source study of the various philosophers of the 20th century, representing the major schools or movements.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

P&R 495. Seminar (1-3) Prerequisite: Credit in philosophy and religion and consent of department. Research of selected philosophic and/or religious problems. Three hours each week.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Religion Course Descriptions

(Department of Philosophy and Religion)

P&R 103. Introduction to Religion (3) Religion as a field of study; major modes of religious expression; chief issues in religious thought and experience; the search for method since the Enlightenment critique; contemporary developments.

P&R 125. Great Books of the World's Religions (3) Selections from classic writings of both Western and Eastern religions, including Hebrew Bible, the New Testament, the

Qur'an, and Buddhist and Hindu scriptures. Examination of their central ideas and values as well as their development and acceptance as sacred scriptures.

P&R 140. **Research Tools for Historical and Textual Criticism—Hebrew (3)** Basic study of the Hebrew language with special attention to that of the Old Testament.

P&R 141. **Research Tools for Historical and Textual Criticism—Greek (3)** Basic study of the Greek language with special attention to that of the New Testament.

P&R 230. **Judaism, Christianity and Islam (3)** Survey of the three major Abrahamic faiths; the origins, beliefs and practices of these "people of the Book;" history of their interactions and influence on Western culture.

P&R 231. **Primitive and Classical Religions (3)** A survey of primitive religion as revealed both in archaeological research and remaining primitive customs; examination of classical faiths of Egypt, Mesopotamia and ancient Europe.

P&R 232. **Asian Religions (3)** A survey of Hinduism, Buddhism, Taoism, and Confucianism; historical aspects, basic insights, contemporary relevance.

P&R 235. **Introduction to the Old Testament (3)** Historical study of the Hebrew scriptures and their cultural background; focus on the values, problems, and perceptions of the human condition reflected in these texts and archaeological data related to them.

P&R 236. **Introduction to the New Testament (3)** Historical survey of the canonical Christian literature; illustration of contemporary methods of text-criticism, literary-criticism, form-criticism, and redaction-criticism; focus on results of modern scholarship in appreciating the Gospels and their function in the early Christian community.

P&R 238. **History of Christianity I: Early and Medieval (3)** Survey of the basic development of the Christian church from its foundation to the Protestant Reformation. Emphasis on major thinkers and pivotal events that determined the historical trends.

P&R 240. **History of Christianity II: Modern (3)** Survey of the history of Christianity from the Reformation to the present. Accent on the contributions of the chief theologians and the particular problems raised by "modernity" since the 17th century.

P&R 242. **Religion in America (3)** Survey of religious thought and experience from colonial times to the present; representative Protestant, Catholic, and Jewish leaders; native American and black American traditions; religious reform and revivalism.

P&R 243. **Afro-American Religion (3)** Study of the religious life of black American communities, with concentration on independent traditions, sects, cults, and a sampling of major thinkers and issues.

P&R 245. **Judaism (3)** Introduction to religious beliefs, rituals and traditions of Judaism. Examination of its historical background and contemporary significance.

P&R 246. Islam (3) Introduction to religious beliefs, rituals and traditions of Islam. Examination of its historical background and contemporary significance.

P&R 247. Hinduism (3) A survey of Hindu religion and philosophy over its three thousand year history. Examines myths, philosophies, rituals, meditation teachings, and social thought.

P&R 248. Buddhism (3) Survey of the essentials of Buddhism as seen in ethical and social thought, meditation practices, philosophies, rituals and art.

P&R 255. Historical Geography of Middle East (Biblical Era) (3) Prerequisite: GGY 145 or P&R 235 or consent of instructor. Geographical, archaeological, historical, and geological investigation of the physical environment and cultural landscapes that provide the settings for the evolution of the population, economics, and cultures of Southwestern Asia.

P&R 325. Psychology of Religion (3) Prerequisite: P&R 103 or consent of instructor. Selected readings on the nature and types of religious experience, and on theories of personality and consciousness as they relate to religion. Examination of the writings of Freud, Jung, and others.

P&R 334. Old Testament Literature (3) Analysis and interpretation of a particular part of the Hebrew Scriptures. Topics will vary from one course offering to another. (The Torah the Prophets; the Writings).

P&R 336. New Testament Literature (3) Analysis and interpretation of a particular part of the New Testament. Topics will vary from one course offering to another. (The Gospels; the Acts of the Apostles; the Johannine works; the Letters of Paul).

P&R 337. Apocrypha and Pseudepigrapha (3) Prerequisite: P&R 235 or 236. Analysis of the major Jewish and Christian writings related to but excluded from the Bible including histories, apocalypses, testaments, prayers, moral tales, and wisdom books.

P&R 340. Philosophy of Religion (3) Prerequisite: P&R 101 or 103. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism.

P&R 351. Religion in Early America (3) Prerequisite: P&R 103 or 242 or consent of instructor. Examination of the role and significance of religion in early American culture and society. Topics include contact between Native American and Euro-American religious traditions, Puritanism, First Great Awakening, religion in the revolutionary era, separation of church and state.

P&R 353. Religious Reform in Modern America (3) Prerequisite: P&R 103 or consent of instructor. Examination of religious thought and action concerning social change in modern America. Topics include urban revivalism, labor, civil rights, and peace movements. Specific attention given to differing interpretations of scripture, church teachings, and religious identity.

&R 355. Southern Religion (3) A study of religion in the Old South until 1865. Topics include: revivalism; the system of slavery; the Southern way of life; and the religious beliefs and practices of blacks and whites.

&R 400. Colloquium for Majors (3) Prerequisite: Junior and senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors.

&R 421. Contemporary Religious Thought (3) Prerequisite: P&R 103. Primary source study of principal religious thinkers of 20th century, especially within Judaism and Christianity.

&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

&R 495. Seminar (1-3) Prerequisite: Credit in philosophy and religion and consent of department. Research of selected philosophic and/or religious problems.

&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

PHYSICAL EDUCATION

(See Health, Physical Education and Recreation)

PHYSICS

Dr. Olszewski, *Chairperson.* Dr. Alexanian, Dr. Clator, Dr. Davis, Dr. Haywood, Dr. Herandez, Dr. Karim.

Requirements for a Concentration in Physics for the B.A. degree: PHY 201-202, 215, 25, 260, 321, 335, 400 (1 semester hour), 495, and two 300-400 level physics courses; HM 101-102 with lab; MAT 161-162 and 261. Physics majors working toward certification r secondary school teaching must also complete Teacher Education Program requireents.

A "C" or better on each Physics course.

Requirements for a Concentration in Physics for the B.S. degree: PHY 201-202, 215, 1-312, 321-322, 335, 345, 400 (3 semester hours), 411-412, 455, 495, and two of the llowing: 415, 425, 435, or 445; CHM 101-102 with lab; MAT 335, 361 and one additional ree semester hour MAT course at the 300-400 level.

A "C" or better on each physics course.

Requirements for Teacher Certification in Physics: In addition to completing the requireents for a degree in physics (see above) and the other requirements of the Teacher Ed-

ucation Program, the following courses are also required for certification: BIO 110, 111; GLY 120.

Note: Students interested in the B.S. degree in physics are advised to take the PHY 201-202 sequence in the freshman year.

Physics Course Descriptions

PHY 101-102. Elementary College Physics (4-4) Corequisite: MAT 111. Mechanics, heat, sound, light, electricity and magnetism, and introduction to modern physics. Three lecture and two laboratory hours each week.

PHY 105. Introductory Physics (4) Terminal course designed to cover basic principles of physics. May not be taken for credit if student has already successfully completed PHY 205. Three lecture and two laboratory hours each week.

PHY 170. Photography (3) Techniques and procedures in the use of photographic materials and equipment. Two lecture and two laboratory hours each week.

PHY 201-202. General Physics (5-5) Corequisite: MAT 161-162. 201: Mechanics, heat, wave motion and acoustics. 202: Electrostatics, magnetism, circuits, electrodynamics, optics, atoms, electrons, radioactivity and nuclear physics. Four lecture and two laboratory hours each week.

PHY 205. Basic Concepts in Physics (3) An introductory course covering a broad spectrum of topics in physics: Mechanics; properties of matter; heat; sound; electricity and magnetism; light; atomic and nuclear physics; and relativity and astrophysics. May not be taken for credit if student has already successfully completed PHY 105.

PHY 206-207. Problems in General Physics (2-2) Prerequisite: PHY 101-102 and corequisite: MAT 161-162. Problems in general physics and their applications. Two problem sessions each week.

PHY 211-212 Electric Circuits (4-4) Corequisite: MAT 161. Fundamental laws of electric circuits; transient and steady-state sinusoidal analysis of linear circuits by complex frequency, phasor and two-port networks. Three lecture and three laboratory hours each week.

PHY 215. Special Relativity (1) Prerequisite: PHY 201 and corequisite: PHY 202. The geometry of spacetime; relativistic momentum, energy, kinematics, and dynamics; the physics of curved spacetime; and the effect of relativity on electricity.

PHY 225. Electronics (3) Prerequisite: Consent of instructor. An introduction to electronics with emphasis on instrumentation and techniques used in scientific laboratories. Two lecture and two laboratory hours each week.

PHY 260. Introduction to Astronomy (3) Descriptive course in principles, theories, and techniques of astronomy. Occasional night viewing.

PHY 311-312. Mathematical Physics (3-3) Prerequisite: PHY 202. An introduction to the mathematical techniques useful in physics: vector analysis, operator and matrix analysis; functions of a complex variable and calculus of residues; differential equations, special functions of a complex variable and calculus of residues; differential equations, special functions of mathematical physics; Fourier series and transforms, eigenfunctions and Sturm-Liouville equation; Green's functions; variational methods; and perturbation theory.

PHY 321-322. Mechanics (3-3) Prerequisite: PHY 202. Elements of Newtonian mechanics, mechanics of continuous media, Lagrange's equation, rotation of a rigid body.

PHY 335. Introduction to Modern Physics (3) Corequisite: PHY 215. Survey of modern atomic and nuclear physics, including historical development, and wave mechanics.

PHY 345. Quantum Mechanics (3) Prerequisite: PHY 335 and corequisite: MAT 361. An introduction to the basic principles of quantum mechanics. Topics include operators; symmetry; orbital and spin angular momentum; and applications to simple systems.

PHY 400. Advanced Laboratory (1) (May be repeated for up to three hours credit) Prerequisite: Consent of instructor. Designed to acquaint students with the various laboratory techniques, error analysis and reduction of data by digital computer.

PHY 411-412. Electricity and Magnetism (3-3) Prerequisite: PHY 202 and corequisite: MAT 261. Electric and magnetic field theory; Poisson's and Laplace's equation; harmonic methods, special methods for solution of electrostatics problems, material media and boundary value problems; electromagnetic waves and radiation; electromagnetic laws of optics.

PHY 415. Solid State Physics (3) Prerequisite: PHY 335. A study of the basic properties of solids—crystal structure; mechanical, thermal and electromagnetic properties as determined by the phonon, electron, and magnon characteristics.

PHY 425. Atomic and Molecular Physics (3) Prerequisite: PHY 345. The quantum theory of atomic and molecular structure and spectra. Topics include relativistic and electromagnetic interactions; the hydrogen atom, the helium atom, multielectron atoms; radiative and Auger transitions, selection rules; diatomic and simple polyatomic molecules.

PHY 435. Nuclear Physics (3) Prerequisite: PHY 345 or consent of instructor. Introduction to properties of the nucleus; natural and artificial radioactivity; nuclear reactions and particle accelerators.

PHY 445. Optics (3) Prerequisite: PHY 202 and MAT 261. Physical and geometrical optics. Huygen's principles, electromagnetic theory of light.

PHY 455. Thermal Physics (3) Prerequisite: PHY 335 or consent of instructor. Principles of thermodynamics and heat transfer; response of molecules to temperature effects illustrated by introduction to kinetic theory and statistical mechanics.

PHY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

PHY 495. Physics Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in physics.

PHY 499. Honors Work In Physics (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492; 294 and 494, see explanations on p. 90.

POLITICAL SCIENCE

Dr. Dixon, *Chairperson.* Dr. Ahmad, Dr. Johnston, Dr. Jones, Dr. Lowery, Dr. Sheridan, Ms. Wang.

Requirements for a Concentration In Political Science for the B.A. degree: 42 hours of Political Science which must include 101-102, 111, 210 and 211. 18 must be at the 300-400 levels and at least one 300-400 level course must be taken in each of the following subfields: American government and politics, political theory and methodology, international relations, and comparative government. Students are expected to complete the required lower level courses before upper level ones.

A "C" grade point average over-all on 300-400 level political science courses is required, and at least a "C" grade is mandatory in the specific courses required in the department listed above.

Required collaterals: 24 hours selected from departmentally approved courses in a least four of the following disciplines: anthropology, criminal justice, economics, environmental studies, geography, history, philosophy, psychology, social work, sociology, and speech communication.

A knowledge of the skills of research or of a modern foreign language is required. This can be demonstrated by either of these methods: passing the statistics in the social sciences course (STT 205) or passing six semester hours in one of the modern foreign languages chosen from the following courses: 101, 102, 201, 202, or upper level courses for which 202 is a prerequisite.

Students planning to do graduate work are urged to study a modern foreign language and acquire a basic knowledge of computer science, statistics and mathematics through the calculus.

Political Science Course Descriptions

(Department of Political Science)

PLS 101-102. American National Government (3-3) 101 focuses upon basic principles, institutions and functions such as federalism, separation of powers, civil liberties, and judicial review. 102 introduces the political environment of public opinion, political par-

ties and interest groups and traces its impact upon national policy areas, such as civil rights, the economy, and national defense.

PLS 111. Politics and Government in Global Perspective (3) A survey from a cross-national, comparative perspective of politics and governmental institutions within and among nation-states. Attention will also be given to the role of political theory and ideology in the governance of states.

PLS 202. Contemporary Political Issues (3) An examination of important domestic and international political issues and their relationship to the overall political process. Topics include arms control, affirmative-action, the media and politics, social welfare policy, U.S. policy toward the Third World, and religion and politics.

PLS 206. American State Government and Politics (3) A survey and analysis of the organization, functions, and political processes of the American states.

PLS 207. American Urban Government and Politics (3) A study of the structure, functions, political processes, problems and trends in American city and metropolitan government and politics.

PLS 210-211. Research Methods in Political Science (3-3) An introduction to the rationale and application of basic methods of political research. PLS 210 focuses on library research, the information sources of government and politics and how to use them. PLS 211 introduces quantitative methods - the principles, applications, and limitations of statistical and computer analysis of political phenomena.

PLS 300, 301. American Constitutional Law (3-3) Prerequisite: PLS 101. Analytical study of U.S. Supreme Court decisions affecting separation of powers and individual rights. 300: the powers of the judicial, executive, and legislative branches of national government; the relationships among these branches; and the federal system. 301: individual rights and liberties other than procedural rights of persons involved with the criminal justice system.

PLS 302. Public Opinion and Democracy (3) Prerequisite: PLS 211 or consent of instructor. An examination of the origin, content, and policy impact of public opinion in democratic nations, with major emphasis on the contemporary American experience.

PLS 303. Elections and Voting Behavior (3) Prerequisite: PLS 211 or consent of instructor. An evaluation of the impact of citizen beliefs and preferences on election outcomes. The course is structured around a critical examination of the assumptions, findings and interpretations of the major voting studies since World War II.

PLS 304. Introduction to Public Policy Analysis (3) Prerequisite: PLS 101. A study of the theories and methods of analyzing and explaining public policy and the substance of recent domestic policies in the areas of public finance and human and physical resources, including welfare, education, protection of the environment, housing, health, urban renewal and transportation.

PLS 305. The Constitution and the Criminal Justice System (3) Prerequisite: PLS 101. Study of U.S. Supreme Court decisions on rights of suspects, defendants, witnesses, and convicted criminals.

PLS 307. The American Legislature (3) Prerequisite: PLS 101. Functional study of legislative bodies and lawmaking. Among the topics studied will be the role of legislatures; the impact of constituencies, parties, interest groups, interpersonal relationships and other pressures on legislators; legislative structure; and the decision-making process.

PLS 308. Public Administration (3) Prerequisite: PLS 101. Introduction to public administration in the United States. Nature and scope of public administration, public interest in the administrative process, role of administrators, formal and informal organization, public personnel and financial management.

PLS 309. The American Chief Executive (3) Prerequisite: PLS 101. An examination of the concept of a political chief executive as a coordinate member, with legislature and courts, of a government team. Emphasis will be placed on the powers, roles, decision-making processes, and institutional development of the offices of president, governor, and mayor.

PLS 310. (P&R 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or consent of the instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include natural law; historical, analytical and sociological jurisprudence; idealism; utilitarianism; legal realism; equity, justice, precedent, custom and law; and the relation of law and morality.

PLS 311. (SOC 311) Techniques of Public Opinion Polling (3) Prerequisite: PLS 211 or consent of instructor. Basic skills in all phases of public opinion polling; issue focus; questionnaire construction; sample selection, interview techniques; elementary data analysis; interpretation and presentation of results. Opinion polls of current political and social issues conducted as class projects to develop these skills.

PLS 312. Scope and Methods of Political Science (3) Prerequisite: PLS 102, 111, and 211. A synthesis of the theoretical questions, techniques, and approaches in the subfields of political science, e.g. American politics, comparative politics, international relations, political behavior, public law and political theory.

PLS 313. Early Political Thought (3) An introduction to the origin and development of political theory from the 5th Century B.C. through the medieval era. Emphasis will be placed on the political ideas of Plato, Aristotle, the Epicureans, the Stoics, Cicero, Augustine, medieval philosophers, and Aquinas in order to discover the recurring themes of political inquiry.

PLS 314. Modern Political Thought (3) A critical examination of political ideas from 1500 to 1900 with special attention to those of Machiavelli, Hobbes, Locke, Rousseau, Montesquieu, Hume, Burke, Hegel, Bentham, Marx, the Mills, Spencer, T.H. Green and Nietzsche.

PLS 315. Contemporary Political Ideologies (3) A study of the concept of ideology and its significance in the modern world. Systematic analysis of the major political ideologies of the 19th and 20th centuries with emphasis on democracy, communism, fascism, nationalism, anarchism, and the New Left.

PLS 316. Women and Politics (3) Prerequisite: PLS 111 or 101 or consent of instructor. An introduction to political perspectives on sex role differentiation. Among the topics to be discussed will be political socialization of women in ancient and modern society; women's roles in politics and government; political consequences of women's entry into the work force; and contemporary issues in the women's movement. Emphasis will be placed throughout on comparative political analysis.

PLS 330. Political Systems of Africa (3) The governments and politics of selected sub-Saharan African states. A survey from colonial days to the present with emphasis on contemporary economic, social and political problems.

PLS 331. Politics in Developing Nations (3) An examination of the political, economic, and social problems confronting developing nations. Attention will be given to such issues as cultural pluralism, one-party states, military dictatorships, and U.S. relations with the developing world.

PLS 335. European Political Systems (3) Political institutions and processes of selected European countries, including Great Britain, France and Germany.

PLS 336. Political Systems of the Soviet Union and Eastern Europe (3) A comparative study of the political institutions and processes of the Soviet Union and the eastern European Countries; the post-Stalin dynamics and the nature and significance of contemporary changes. Attention will be given to their foreign relations, especially with Communist China.

PLS 338. Political Systems of the Middle East (3) The governments and politics of the Middle East with emphasis on the changes that have occurred since 1945. A detailed examination of the forces that have shaped contemporary Middle Eastern politics: Islam, nationalism, modernization, and current political trends. The political institutions and processes and the domestic and foreign policies of selected countries will be studied.

PLS 339. Political Systems of Asia (3) The political systems of selected Asian countries. Special emphasis on the contemporary political, social and economic problems of India, Pakistan, Japan, China, Indonesia and other Asian countries.

PLS 340. Blacks in American Politics (3) Prerequisite: PLS 111 or 101 or consent of instructor. A study of American political institutions and processes through the eyes of Black America. This study will analyze the power structure in the black community, dissent and protest, black participation in the political system, black leaders and politicians and their politics, and the uniqueness of black politics as compared with the wider spectrum of the political system.

PLS 405. American Parties and Pressure Groups (3) Prerequisite: PLS 211 or consent of instructor. An historical and analytical treatment of the appearance and realignment of political parties during the five successive "national party systems" since the beginning of the republic. Special emphasis is given to the question of contemporary party disarray and potential realignment.

PLS 406. Contemporary Southern Politics (3) Prerequisite: PLS 211 or consent of instructor. An examination of recent developments throughout the American South and their impact on national politics. Topics covered include southern political culture, the decline of the one-party system, and the changing roles of blacks and organized labor. Emphasis is placed upon independent research projects involving student analysis of census, election return, and public opinion survey data.

PLS 407. The American Judicial Systems (3) Prerequisite: PLS 101. Analysis of the organization, powers and role of the judiciary. Topics studied will include the political role of American judges, factors influencing judicial policy-making, selection of judges, the role of lawyers, and socio-metric relationships within the judiciary.

PLS 415. American Political Thought (3) American political thought from the colonial period to the present.

PLS 422. Contemporary American Foreign Policy (3) Prerequisite: PLS 101 or 111. The roles and interrelationships of Congress, the media, public opinion, the president, the secretaries and departments of state and defense, and the intelligence community are examined. Emphasis is placed on the content and the dynamic aspects of the process of policy formulation and implementation.

PLS 423. National Security Policy (3) Prerequisite: PLS 101. A study of formulation of security policy, including the roles of the executive and legislative branches and of non-governmental factors; evolution of changing assumptions, strategies, and goals; the nature of U.S. security requirements, U.S. military commitments abroad, and the cost of strategies based on weapons superiority, arms control, and disarmament.

PLS 425. International Politics (3) Nature of international relations including analyses of basic factors motivating national policies; the United Nations and other international organizations as institutions for promoting peace and welfare in a world of sovereign states.

PLS 426. International Law (3) Prerequisite: PLS 101. Nature, development and basic concepts of international law. Examination of the scope, sources and sanctions of international law; its relation to municipal law; the rights and duties of states and individuals; methods of settling international disputes. Characteristic cases used as illustrations.

PLS 427. International Organizations (3) Prerequisite: PLS 111 or 101 or consent of instructor. A survey of the evolution, objectives and methods of various types of regional and universal organizations and their role in contemporary international relations. Special emphasis will be placed on the principal functions and agencies of the United Nations and the European economic community.

PLS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

PLS 495. Departmental Seminar (1-3) Prerequisite: Six hours of political science and consent of department chairperson. Consideration of special topics in political science. May be repeated for additional credit.

PLS 498. Internship in Political Science (3-6) Prerequisite: PLS 111, 101, 211, and at least one of the following: PLS 300, 304, or 308. This course is open only to persons taking a concentration in political science who are classified as junior or seniors. The internship involves an experiential learning in selected public or private agencies or with an individual which allows the student to utilize academic training while learning from a practical field experience. A formal research project is a major part of the internship.

PLS 499. Honors Work in Political Science (2-3) Prerequisite: Eligibility for honors program and junior or senior standing. Individual study for honors students.

For 292 and 492; 294 and 494, see explanations on p. 90.

PSYCHOLOGY

Dr. Jackson, *Chairperson.* Dr. Applefield, Dr. Bradley, Dr. Brown, Dr. Bruce, Dr. Galizio, Dr. Hakan, Dr. Johnson, Dr. Johnston, Dr. Kishton, Dr. Kowal, Dr. Lamb, Dr. Loren, Dr. MacKain, Dr. Overman, Dr. Pilgrim, Dr. Puente, Dr. Sawrey, Ms. Sheridan, Dr. Simmons, Dr. Williams.

Requirements for a Concentration in Psychology for the B.A. degree: PSY 105, 225, 355, 405, one course from each of the six categories listed below, and nine additional hours in PSY courses at the 300-400 level. Category 1: PSY 220, 221, 223, 320 or 324. Category 2: PSY 410, 412, 417. Category 3: PSY 418, 456 or 457. Category 4: PSY 346, 347 or 365. Category 5: PSY 336, 337 or 425. Category 6: PSY 350, 352, 450, or 465. A grade of "C" or better is required in PSY 105, and no more than one course with a grade of "D" can count toward the requirements for a concentration in psychology. There also must be a "C" or better average across all courses attempted within the department. Twelve hours of collateral courses, selected from a list available in the departmental office, are required. BIO 105, 111, or 206 is required.

Psychology Course Descriptions

PSY 105. General Psychology (3) Principles of psychology with emphasis on scientific methods used in studying human behavior.

PSY 110. Self-Management and Self-Motivation (3) Techniques and concepts to provide knowledge, skills, and attitudes to improve performance. Development in coping skills, including determination and modification of motivation, self-management and time-management skills, and efficient methods of learning and organizing materials and solving problems. (Not for social science general degree requirement of psychology major credit.)

PSY 145. Psychology Applied to Human Life (3) A study of psychological principles and findings as applied to particular fields of endeavor and to various stress situations. Primary emphasis will be on the problem of human adjustment.

PSY 216. Educational Psychology (3) Prerequisite: PSY 105 is suggested. Study of the application of psychological theories and principles in educational settings.

PSY 220. Child Psychology (3) Prerequisite: PSY 105 or 145. Study of human psychological development through childhood and early adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development.

PSY 221. Adolescent Psychology (3) Prerequisite: PSY 105 or 145. Study of human psychological development from late childhood through adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development.

PSY 223. Lifespan Human Development (3) Prerequisite: PSY 105 or 145. Variables and factors underlying human growth and development across the lifespan. Physical, cognitive, social, emotional, and sexual development are emphasized.

PSY 225. Introductory Statistics for the Behavioral Sciences (4) Prerequisite: PSY 105 and satisfactory performance on the UNCW mathematics placement test. Introduction to the statistical techniques most often used by behavioral scientists for either descriptive purposes or hypothesis testing. Parametric techniques are emphasized, but nonparametric tests are included. Three lecture and two laboratory hours each week.

PSY 245. Drugs and Behavior (3) Prerequisite: Three semester hours credit in psychology. An examination of the psychological aspects of drug use and abuse. Emphasis will be on the effects of major psychoactive drugs (including alcohol) on behavior, the psychological determinants of drug use, and treatment of drug abuse.

PSY 262. Psychology of Consciousness (3) Prerequisite: PSY 105. A study of the mental processes which occur during various states of human consciousness such as sleep, biofeedback and meditation. Emphasis on the research and theories of brain processes during states of consciousness.

PSY 265. Human Sexual Behavior (3) Prerequisite: Three hours of psychology, excluding PSY 110. Examination of the psychological aspects of human sexuality with emphasis on psychosexual development and behavior. Includes discussion of causative factors and treatment of sexual disorders and deviations.

PSY 311. Psychology of Language (3) Prerequisite: PSY 105. An introduction to theory and research concerning human language use. Topics will include the nature of human linguistic competence, the perception of speech, the comprehension of speech, memory for verbal information, the production of speech, and the biological basis of human language.

PSY 320. Developmental Psychology (3) Prerequisite: PSY 105 or 220. Examination of various areas of behavior (motor, social, and intellectual) and theoretical explanations of their development. Emphasis on underlying psychological and biological processes.

PSY 322. Psychology of Exceptional Children (3) Prerequisite: PSY 105 or 220. A study of the physical, cognitive, and personality characteristics of the major types of childhood exceptionality, including high intelligence and creativity, mental retardation, learning disabilities, emotional disorders, language impairments, and sensory and physical handicaps. Issues such as assessment, etiology, family relations, and treatment will be discussed.

PSY 324. Psychology of Adulthood and Aging (3) Prerequisite: Three hours in psychology, excluding PSY 110. A developmental approach to the portion of the lifespan from young adulthood through senescence. Emphasis on the interaction of psychological, psychosocial and physiological aspects of development.

PSY 336. Industrial Psychology (3) Prerequisite: PSY 105. The study of psychological techniques in personnel selection and placement, merit rating, reduction of accidents, training, morale, and other factors utilized in industrial work.

PSY 337. Vocational Psychology (3) Prerequisite: PSY 105 or permission of instructor. The study of individual vocational behavior and development. Topics include the history of vocational psychology, theories of vocational development and choice, as well as stimulus, organismic, and response variables correlated with the choice process. Attention is directed toward theories and research concerning the meaning of vocational motivation and vocational adjustment, as well as the prediction of vocational success and satisfaction. Systems for defining vocational problems are included.

PSY 346. Psychology of Personality (3) Prerequisite: PSY 105. A study of the basic facts concerning the structure, organization, and adjustmental mechanisms of personality.

PSY 347. Psychopathology (3) Prerequisite: PSY 105. The study of behavioral pathology. Emphasis will be placed on the underlying factors of the neuroses, psychoses, and character disorders.

PSY 350. Principles of Behavioral Change (3) Prerequisite: PSY 105. Application of the principles of behavioral control in interpersonal, educational, and clinical settings. Primary emphasis will be on behavioral modification techniques such as contingency management, desensitization, biofeedback, etc.

PSY 352. Behavioral Medicine (3) Prerequisite: PSY 105 or 145. Integrates psychological and biomedical knowledge relevant to physical health and illness. Describes the interaction of psychological phenomena with the epidemiology, etiology, pathogenesis, treatment, and rehabilitation of physical disorders.

PSY 355. Introduction to Experimental Psychology (4) Prerequisite: PSY 225. Basic principles of psychological research design and evaluation, including techniques of data collection and analysis, and conduct, interpretation, and reporting of various types

of psychological research. Experimental research is emphasized. Three lecture and three laboratory hours each week.

PSY 365. Social Psychology (3) Prerequisite: PSY 105. The study of individual human behavior as a function of the influence of other persons. Emphasis on the psychology of person perception, interpersonal communication and relationships, attitude formation and change, and small group behavior.

PSY 366. Psychology of Marriage and Family (3) Prerequisite: Three hours of psychology. The study of personality development within the marriage and family including recent theoretical and empirical findings on courtship, interpersonal attraction, marriage contract, and the various stages of the family life cycle. Communication, familial functioning and dysfunctioning are emphasized.

PSY 370. (EVS 370) Environmental Psychology (3) Prerequisite: PSY 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of this environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment.

PSY 405. History and Systems of Psychology (3) Prerequisite: Fifteen semester hours credit in psychology. History of psychology relative to current trends.

PSY 410. Cognitive Psychology (4) Prerequisite: PSY 355. Introduction to theories and research related to human cognition. Memory, attention, problem solving, and thinking are emphasized. Three lecture and three laboratory hours each week.

PSY 412. Sensation and Perception (4) Prerequisite: PSY 355. Survey of sensory and perceptual processes, techniques for measuring sensations and perceptions, and theories of perception. Psychological, anatomical, physiological, and environmental factors important in determining how we perceive the world are examined. Demonstrations will introduce students to interesting perceptual phenomena. Three lecture and three laboratory hours each week.

PSY 417. Psychology of Learning (4) Prerequisite: PSY 355. Study of the basic facts related to the learning process. Effects of reinforcement, extinction, generalization and discrimination, verbal learning and retention, as well as other phenomena, are considered. Three lecture and three laboratory hours each week.

PSY 418. Motivation and Emotion (3) Prerequisite: PSY 105 and BIO 105 or consent of instructor. Psychological theory and research in the areas of motivation and emotion. Basic as well as more complex motive states will be examined as they arise from physiological needs and from learning and cognitive processes. Data from animal as well as human studies will be considered.

PSY 425. Psychological Tests and Measurements (4) Prerequisite: PSY 105 and 225 or consent of instructor. Introduction to theory and practice of test construction, including a survey of intelligence, achievement and personality tests and their applications. Three lecture and two laboratory hours each week.

PSY 449. Psychology of Death (3) Prerequisite: PSY 105. A study of psychological aspects of death and dying. Man's conceptualization of and behavior toward his own demise will be studied. Special emphasis will be placed on the behavioral context surrounding terminal illness, suicide, and homicide. Psychological aspects of gerontology will also be considered.

PSY 450. Introduction to Counseling (3) Prerequisite: PSY 346 or 347. The major historical and contemporary theories of counseling including Freudian, client-centered, behavioristic and existential will be reviewed. Examination of each theory will be accompanied by demonstration and role-play situations in which the elements of each theory are explored.

PSY 451. Supervised Counseling Practice (3) Prerequisite: PSY 346, 347 and 450 and consent of instructor. This course will provide for supervision of student practice in application of counseling skills and techniques in a variety of in-service situations. The student will participate in supervised counseling experiences in local social service agencies. The emphasis will be upon practice of skills combined with regular consultation with the supervisor. May be repeated once for additional credit.

PSY 452. Ethical Principles in Psychology (1) Prerequisite: Permission of the instructor. A study of the ethical considerations involved in counseling and psychotherapy, psychological testing, and the use of human subjects in research.

PSY 455. Advanced Psychological Research (3) Prerequisite: PSY 355 and consent of instructor. Experience in the design, conduct, and evaluation of psychological research. Advanced design and analysis techniques. Each student designs and conducts a research project and a laboratory exercise for PSY 355. Offered on demand.

PSY 456. Physiological Psychology (3) Prerequisite: PSY 105 and BIO 105 or consent of instructor. A study of the anatomy of the nervous system and the roles which various neural structures play in the control of behavior.

PSY 457. Animal Behavior (3) Prerequisite: PSY 105 and Biology 105 or consent of instructor. A study of animal behavior including the traditional areas of ethology and comparative psychology. Primary emphasis is upon the similarities and differences in the behaviors of animals occupying various phylogenetic positions.

PSY 465. Community Psychology (3) Prerequisite: PSY 105. PSY 365 is suggested. A study of the contributions of psychology to the understanding of an individual's behavior as influenced by his community environment. A major consideration will be given to the problems associated with community mental health.

PSY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

PSY 495. Topical Seminar (1-3) Prerequisite: PSY 105 and consent of instructor. Discussion of selected topics in psychology. May be repeated for additional credit.

SSY 499. Honors Work in Psychology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492; 294 and 494; see explanations on p. 90.

RECREATION

(See Health, Physical Education and Recreation)

SOCIAL SCIENCE

(Interdepartmental)

Participating disciplines: anthropology, earth sciences, political science, psychology, sociology.

Requirements for a Concentration in Social Science for the B.A. degree: 51 hours in the Social Sciences, with a minimum of 30 hours in courses above 299. At least one course is required in each of the five participating disciplines, or at least one course required in four disciplines with an additional course in economics. A minimum of 21 hours is required in the primary concentration area, with at least 15 of these hours in courses above 299. A minimum of 12 hours is required in each of two secondary concentration areas. At least six additional hours in social science are required.

Additional required courses include: a research methods course, the discipline of this course to be decided by the advisor and the student (3 hours); an appropriate statistics course (3 hours); a two-course history sequence, or an appropriate pairing to be decided by the advisor and the student (6 hours). A computer science course is recommended, but not required. At least a 2.0 grade point average in the social science concentration must be attained.

A faculty member within the area of primary concentration shall serve as the student's advisor. Note: The primary concentration area may not serve as a discipline in a double major.

SOCIOLOGY AND ANTHROPOLOGY

Dr. McNamee, *Chairperson.*

The Department of Sociology and Anthropology is comprised of anthropology, criminal justice, social work and sociology. The baccalaureate degree is offered in anthropology, criminal justice, sociology and the BSW degree in social work.

Anthropology

Dr. Lerch, Dr. Loftfield, Dr. McCall, Dr. O'Meara, Dr. Sabella.

Requirements for a Concentration in Anthropology for the B.A. degree: ANT 206, 207, 207-51, 210, 345, 450 and 21 additional hours comprised of two courses from each of the first three subfields listed below and one from the linguistics group. Physical: 320, 322, 324, 430. Archaeology: 307, 311, 312, 411. Cultural: 301, 302, 303, 304, 305, 306, 309, 317,

350. Linguistics: ANT 208, PSY 311, ENG 320, 322. Although no collateral courses are required, students contemplating a professional career in anthropology are urged to study a foreign language and acquire basic skills in computer science and statistics. Anthropology advisors may recommend additional courses in the sciences, humanities, or mathematics commensurate with individual career plans. A "C" grade point average is required in anthropology courses, and at least a "C" grade is required for specific courses used to satisfy any of the requirements listed above.

Anthropology Course Descriptions

(Department of Sociology and Anthropology)

ANT 105. Introduction to Anthropology (3) Introduction to the physical, archaeological, linguistic, and ethnological fields of anthropology; biological and cultural evolution of man.

ANT 205. (SOC 205) Human Societies (3) The comparative study of human society and culture, with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions—economy, marriage and kinship, politics and religion—which underlie and support a particular way of life. Comparisons are drawn among hunter-gatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamics of social process and cultural change are also introduced.

ANT 206. Cultural Anthropology (3) A presentation of the content and historical development of cultural anthropology. Deals with the cultural relativism, ethnocentrism, institutional analysis and cultural integration and shifts in theoretical perspectives by comparing ethnographies of selected cultures.

ANT 207. Archaeology (3) The concepts and aims of archaeology, its history as a scientific discipline and its present role in the social sciences. Attention to basic principles in field work and to recent advances.

ANTL 207-51. Archaeological Laboratory (1) Corequisite or prerequisite: ANT 207. Course is designed to familiarize students with techniques of archaeological recover, preparation, preservation, and analysis of recovered archaeological materials. Laboratory work will parallel lecture, providing practical experience in techniques covered as part of lecture course. It is not necessary to take the lab in order to take lecture. Three hours each week.

ANT 208. Language and Culture (3) Human language, its characteristics and its relationship to other communication systems will be examined. The use of language to illuminate historical relationships and current sociocultural processes will be discussed, as well as ways in which one can investigate culture through cognitive structures elicited from speech.

ANT 210. Physical Anthropology (3) Introduction to the study of human evolution. Consideration given to the fossil evidence for humans and putative human ancestors, early

development of culture, and dynamics of cultural and biological changes in recent and living human populations.

ANT 222. Pacific Island Societies (3) Introduction to the people and islands of the Pacific, including their traditional cultures, their prehistory, and their history as colonies and as contemporary nations.

ANT 230. (SOC 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are reviewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival.

ANT 250. Anthropology Through Film (3) A series of anthropological (ethnographic) films exploring life and values, especially in nonwestern societies, provide the primary course material. The films are used as a surrogate field experience to introduce a number of major anthropological topics that receive further emphasis in assigned readings and class discussion. Ethnocentrism, adaptation, warfare and acculturation among other themes are explored in this course.

ANT 301. Shamanism, Witchcraft, and Cults (3) Prerequisite: ANT 105 or consent of instructor. A study of the religious institutions of traditional band, tribal and peasant societies. Topics cover psychological stress, social control, and ritual healing. The cult within modern western society will be compared with those in traditional preindustrial society.

ANT 302. Traditional Societies in the Modern World (3) Prerequisite: ANT 105 or consent of instructor. An assessment of the impact of Western industrial societies on primitive and peasant peoples of the world. Themes of acculturation, underdevelopment, modernization, economic dependency and rural to urban migration will be treated from a cross-cultural perspective.

ANT 303. Women, Work and Culture (3) Prerequisite: ANT 105 or SOC 105 or consent of instructor. A study of women's work in traditional societies (primarily Third World). The allocation of work to women is seen as affected by such factors as socialization and gender definition, economic exchange patterns, division of labor, religious beliefs, political structure, and the impact of modernization and development policies on work and family roles of Third World women.

ANT 304. Indians of South America (3) Prerequisite: Consent of instructor. This course will acquaint the student with human populations and their adaptations to the South American continent. Approximately equal emphasis is given to lowland tribes and Andean cultures. Both of these will be studied from an historic perspective spanning the entire period of man's presence on the continent.

ANT 305. Indians of North America (3) Prerequisite: Consent of instructor. Surveys of North American Indian tribes; subsistence patterns reflected through cultural adaptation to various ecotypes; archaeological analysis of the interplay of Asian and Mexican

influences; restructuring of North American Indian cultures as a consequence of European influence.

ANT 306. Principles of Kinship and Social Organization (3) Prerequisite: ANT 105. This course deals with the structures and functions of kinship in a variety of cultures as a background for the study of complex cultural patterns.

ANT 307. New World Archaeology (3) Prerequisite: ANT 105 or 207 or consent of instructor. The entry of man into North America and South America will be examined using archaeological data. Other topics will include the post-Pleistocene expansion of big game hunters, woodland hunter-gatherers, and the development of agricultural societies. Diffusion versus independent invention will be considered.

ANT 308. Marine Archaeology: Methods and Theory (3) Prerequisite: ANT 207, Diver's Certificate. Corequisite: ANT 310. This course is designed to introduce the archaeologist to the field of underwater archaeology. Both classroom and field sessions will be required. Theory will be derived from the existing literature. The role of the archaeologist as an underwater scientist will be emphasized.

ANT 309. Environmental Anthropology (3) Prerequisite: ANT 105 or 206 or 207 or consent of instructor. A study of cultural adaptations as responses of human populations to varied environments; this course will focus upon cultural vs. biological adaptation from the archaeological past to the ethnographic present.

ANT 310. Marine Archaeology: Field Practicum (3-6) Prerequisite: ANT 207, Diver's Certificate. Corequisite: ANT 308. Practical field methods will be taught utilizing actual underwater prehistoric or historic sties. Survey techniques, excavation, record-keeping, and preservation will be stressed and adapted to a submarine environment.

ANT 311. Field Methods In Archaeology (3-6) Prerequisite: ANT 207. Practical field methods of land-site archaeology will be taught through the excavation of local archaeological sites. Scientific excavation, sampling, and preservation techniques will be presented as the basic tools of the archaeologist.

ANT 317. The Human Condition In Latin America (3) Prerequisite: ANT 105 or consent of instructor. This course applies the anthropological perspective to the study of the complex national cultures of Latin America. Topics covered focus on the problem of relating peasant communities, small towns, urban slums, middle class neighborhoods, and clubs and social networks to regional and national institutions.

ANT 320. Human Origins (3) Prerequisite: ANT 210 or consent of instructor. Classification and history of human evolution deduced from the fossil record and molecular data. Discussion of Tertiary hominoids and emergence of humans with emphasis on Australopithecines and later Pleistocene hominoids.

ANT 322. Primate Biology and Behavior (3) Prerequisite: ANT 210 or consent of instructor. Ecology, social behavior, and functional morphology and classification of living primates (prosimians, monkeys, and apes); their evolutionary history and development.

ANT 324. Human Biological Variation (3) Prerequisite: ANT 210 or consent of instructor. Nature and extent of heritable differences among human populations in evolutionary perspective. Consideration of effects of environmental factors on genic expression.

ANT 325. Science, the Humanities and the Explanation of Human Behavior (3) Prerequisite: Junior or senior standing. An examination of the relationship between science and the humanities to determine how each contributes to the understanding of human behavior.

ANT 345. Method and Practice in Cultural Anthropology (3) Prerequisite: ANT 105 or consent of instructor. A study of ethnographic field methods through selected readings demonstrating field techniques of major figures in cultural anthropology, both past and present. Practice involves exercises in participant-observation, indepth interviewing, survey research, photographic analysis, and tape recordings of cultural events.

ANT 350. Maritime Anthropology (3) Prerequisite: ANT 105 or consent of instructor. A study of fishermen, navigators, boatbuilders, and seamen. This course traces the origins and development of human maritime adaptations in selected regions of the world. Themes include primitive and traditional fisheries, technological innovation, fisheries management and law of the sea.

ANT 387. (ART 387) Museum Studies (3) Prerequisite: Consent of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition, and education.

ANTL 387-51 (ARTL 387-51) Museum Studies Practicum (1) Prerequisite: Consent of instructor. Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ANT 411. (HST 507) Advanced Field Training in Archaeology (3) Prerequisite: HST 201 or 441; ANT 311, and consent of instructor. Supervisory training for field archaeologists. Students direct specific aspects of archaeological excavation, including research design, data recovery, daily site management, and field analysis. Summers.

ANT 412. (HST 508) Historical Archaeology (3) Prerequisite: HST 201 or 441, or ANT 105 or 207, or consent of instructor and graduate status. Substantive investigation of the special excavation and analysis procedures, subject matter, and goals of archaeology as applied to the historic past of North America. Special emphasis placed upon historic archaeological sites in the local region. Lecture, laboratory, and field work.

ANT 430. (BIO 430) Evolutionary Biology (3) Prerequisite: BIO 335 (Genetics). Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature.

ANT 450. History of Anthropological Theory (3) Prerequisite: Six hours of anthropology above the introductory level or consent of instructor. This course traces the development of anthropological theory through the research and writings of key figures in the field. Attention is directed toward social and intellectual contexts out of which anthropological theories emerge.

ANT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

ANT 495. Topical Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in anthropology.

ANT 499. Honors Work in Anthropology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492; 294 and 494, see explanations on p. 90.

Criminal Justice

Dr. LaGrange, Ms. Sayles, Dr. Supancic, Dr. Willis

Requirements for a Concentration in Criminal Justice for the B.A. degree: CRJ 201, 340, 350, 360, 450, 490 and CRJL 490-51; SOC 105, 306, 307, and 360; STT 205. Majors must take 18 additional hours in criminal justice and sociology to satisfy the following three areas. Any three (nine hours) of the following criminal justice courses: 240, 310, 315, 370, 380, 405, 410, 415, 495. Any two (6 hours) of the following sociology courses: 335, 355, 375, 449. Any one (three hours) of the following sociology courses: 315, 325, 340, 415. The criminal justice program strives to be interdisciplinary, therefore advisors may recommend that majors take additional courses in the sciences and the humanities. Students must receive a "C" grade or better in all required criminal justice and sociology courses and a "C" or better in those criminal justice and sociology courses used to satisfy any of the three areas listed above.

Criminal Justice Course Descriptions

(Department of Sociology and Anthropology)

CRJ 201. Introduction to Criminal Justice (3) Study of criminal law and the criminal justice system in the U.S. Emphasis on structure and function of police, courts and corrections.

CRJ 240. Issues in Criminal Justice (3) Critical issues and contemporary debates in criminal justice.

CRJ 310. White Collar Crime (3) Prerequisite: CRJ 201. Study of crimes of the powerful and the privileged. Topics include: corporate crime; environmental crime; antitrust violations; political bribery; corruption; tax evasion; fraud; embezzlement; conflict of interest.

CRJ 315. Victimology (3) Prerequisite: CRJ 201. Role of victims in crime and criminal justice system. Special focus on sexual battery, battered women and child abuse.

CRJ 340. Police in Society (3) Prerequisite: CRJ 201. Analysis of role and behavior of police in the U.S. Special attention to social environment and political climate affecting the police.

CRJ 350. Criminal Courts (3) Prerequisite: CRJ 201. Analysis of structure and function of U.S. criminal courts. Examines relationships among the courthouse work-group (police, prosecutor, defense attorney, judge) and the role of witnesses, victims, defendants and jurors.

CRJ 360. Corrections (3) Prerequisite: CRJ 201. Study of societal patterns of punishment, alternatives to incarceration, consequences of imprisonment and correctional strategies of rehabilitation and deterrence.

CRJ 370. Minorities, Crime and Criminal Justice Policy (3) Prerequisite: CRJ 201 plus three additional hours in criminal justice. Study of minorities in crime and criminal justice system. Special focus on the role of racism and sexism in theories of crime and in administration of justice.

CRJ 380. Criminal Law and Procedure (3) Prerequisite: CRJ 201 plus three additional hours in criminal justice. Basic concepts of statutory and procedural law. Topics include: definition of crime; elements of major crimes; criminal responsibility; defenses to criminal charges; constitutional and statutory procedures regarding arrest, search and seizure, interrogation and suspect identification. Special focus on North Carolina law.

CRJ 405. Criminal Justice Administration (3) Prerequisite: CRJ 201 plus six additional hours in criminal justice. Concentration on management techniques and supervisory roles for various administrative segments of the criminal justice system.

CRJ 410. World Criminal Justice Systems (3) Prerequisite: CRJ 201 plus six additional hours in criminal justice. Comparative study of criminal justice systems throughout the world. Attention to historical, structural, political, legal and philosophical similarities and differences. Analysis includes criminal justice systems of England, France, Sweden, Japan and the Soviet Union.

CRJ 415. Research Methods in Criminal Justice (3) Prerequisite: Nine hours of criminal justice and SOC 306. Advanced research methods with application to criminal justice agencies. Special attention to problems and practical solutions in conducting evaluation research in applied settings.

CRJ 450. Criminal Justice Theory (3) Prerequisite: CRJ 201 plus six additional hours in criminal justice. Theories of justice and crime control. Covers philosophy and principles of the U.S. system of justice.

CRJ 490. Criminal Justice Practicum (3) Prerequisite: Senior standing in criminal justice. Field placement in various criminal justice agencies. Integrates practical experience

with classroom knowledge. Practicum students required to participate in ONE hour weekly seminar (CRJL 490-51).

CRJL 490-51. Criminal Justice Laboratory (1) Corequisite: CRJ 490. Classroom discussion of selected topics related to criminal justice practicum.

CRJ 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

CRJ 495. Topical Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Consideration of special topics not dealt with in the regular courses.

For 292 and 492; 294 and 494, see explanations on p. 90

Social Work

Dr. Polgar, *Acting Director,* Dr. Blanks, Dr. Shevach.

The Bachelor of Social Work is designed to prepare beginning generalist social work professionals.

Requirements for the Bachelor of Social Work degree: Students must apply for admission to the social work program and must have completed the following required courses at that time: SWK 235, SOC 105, PSY 105, 223, PLS 101 (15 hours). The following social work courses are required: SWK 301, 302, 345, 396, 496, SWKL 496-51, 497, SWKL 497-51 (26 hours). The following collateral courses are also required: SOC 306, 307, 325, STT 205 (11 hours). Students are required to earn a grade of "C" or better in all required social work courses.

Social Work Course Descriptions

(Department of Sociology and Anthropology)

SWK 235. Introduction to the Social Welfare System (3) The social welfare institution and the social work profession in the United States; the values, methods and roles of social workers and the history of the system.

SWK 301. Social Work Practice with Individuals and Families (3) Prerequisite: SWK 235. An introduction to the basic principles, methods and techniques which form the basis for social work practice with special emphasis on the professional use of self and utilization of systematic processes of problem solving in the delivery of social and rehabilitation services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced.

SWK 302. Social Work Practice with Groups (3) Prerequisite: SWK 301. This course provides an opportunity to explore more fully differential concepts and principles, advocacy role, problem-solving skills, strategies and techniques in providing discrete services to individuals, groups, and communities. Emphasis is on roles, communicative patterns, and types of systems encountered by the social worker. It is also concerned with the broadening and deepening of principles underlying autonomous social work

practice, decision techniques, goal formulation and mobilizing competence for action. Observation and participation in a selected human service agency is required.

SWK 306. Evaluative Methods for Service Agencies (3) Prerequisite: STT 205 and one computer science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application.

SWK 310. Programs and Policies for Older Americans (3) Prerequisite: SWK 235. Health, social, and income needs of an aging population will be related to current laws, programs, administrative networks, and politics. Current issues in the development of programs such as age-integration, community based services, advocacy and protection will be covered.

SWK 318. Social Work and Health Care Delivery (3) Prerequisite: SWK 235. An examination of the rationale, issues, problems and practices related to the implementation of client-centered health care. New programs and proposals for the delivery of health services will be reviewed systematically with reference to the implications for social work practice.

SWK 336. Suicidology and Crisis Intervention (3) Prerequisite: SWK 235. An examination of the present range of theoretical formulations of crisis theory will be made and related to the variety of ways it is being applied in many fields of practice and in a number of commonly encountered stressful situations. Many points of view and approaches, reflecting diverse efforts at extending the knowledge and practice base of crisis conceptualizations are studied. Emphasis is placed on observing, formulating, defining, and measuring the threats, tasks and opportunities associated with crisis behavior in individuals and families. The use of preventative techniques that are appropriate for individuals, groups and communities are explored. A common theoretical frame of reference will be developed to provide systematic and in-depth response, the range of normally developing life crisis, as well as abnormal and accidental crises.

SWK 345. Human Behavior in the Social Environment (3) Prerequisite: SOC 105, SWK 235; PSY 105, 223. A survey of the human behavior from a social systems standpoint. Emphasis on concepts and theories relevant to social work intervention with individuals, families, groups, organizations, and committees. A theoretical foundation for specialized areas of casework, group work, and community organization is provided.

SWK 396. Social Work Practice with Communities (3) Prerequisite: SWK 235. The course analyzes a variety of forms of community organization practice, focusing on definition of goals, values, roles and skills required for professional practice. Community organization is viewed as a process of bringing about desirable changes in community life. Community needs and resources available to meet these needs are studied.

SWK 435. Social Welfare Policies (3) Prerequisite: SWK 235, 301, and 302. A problematic approach to situations that affect policies, issues, programs and services in social work and rehabilitation services. An attempt to aid the student in developing an analytical and critical understanding as he explores the motivation and methods by

which social work and rehabilitation services, policies and programs are being developed by our society and other countries.

SWK 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

SWK 495. Topical Seminar (1-3) Prerequisite: SOC 105, SWK 235 and consent of instructor. A consideration of special topics not dealt with in regular courses.

SWK 496, 497. Social Work Practicum I, II (6, 6) Prerequisite: Consent of instructor. A field experience in selected agencies to permit application and integration of cognitive and affectual learning. Learning experiences are designed to gain and demonstrate beginning knowledge, attitudes and skills consistent with professional social work practice. SWKL 496-51, 497-51 must be taken concurrently.

SWKL 496-51, 497-51. Social Work Practicum Laboratory I, II (1, 1) Corequisite: SWK 496, 497. Integration of practicum and theory through the discussion of selected topics related to social work practice. To be taken concurrently with SWK 496, 497. Two hours each week.

For 292 and 492; 294 and 494, see explanations on p. 90.

Sociology

Dr. Dixon, Dr. Faulkner, Dr. Huer, Dr. Levy, Dr. Maxwell, Dr. McNamee, Dr. Miller, Dr. Scalf.

Requirements for a Concentration in Sociology for the B.A. degree: SOC 105, 306, 307, 360, 406, 460, 490 and 18 additional hours in sociology, 12 of which must be at the 300-400 level. STT 205 is also required. Collaterals will be decided in consultation with each advisee. Within sociology some areas of emphasis are deviance and social control, demography and environmental studies, urban and community studies, family and leisure studies, organizations and bureaucracy, and medical and gerontology. A "C" grade point average is required in sociology courses, and at least a "C" grade is required for specific sociology courses used to satisfy any of the requirements listed above.

Sociology Course Descriptions

(Department of Sociology and Anthropology)

SOC 105. Introduction to Sociology (3) Science of human society emphasizing physical basis of society, culture, collective behavior, population, and social institutions. Analytical approach stressed.

SOC 110. Sociology in Contemporary Life (3) An introductory level course designed to enable students to think about and interpret the social world and events around them. Emphasis will be placed on discovering your social self, understanding social interaction, and interpreting the relationship of the individual with modern industrial society.

SOC 200. Sociology of Sport (3) A sociological examination of the rise of sport in contemporary society. Topics such as the social organization of sports, women and sports,

sports and violence, inter-scholastic sports and achievement behavior, discrimination and sports, and the future of sports are covered.

SOC 205. (ANT 205) Human Societies (3) The comparative study of human society and culture with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions—economy, marriage and kinship, politics and religion—which underlie and support a particular way of life. Comparisons are drawn among hunter-gatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamic of social process and cultural change are also introduced.

SOC 215. Modern Social Problems (3) Social controls and the sociology of revolutionary change. Problems related to race, family, crime, delinquency, and social disorganization.

SOC 220. Sociology of Birth and Death (3) The examination of the sociological dimensions of "human entry and exit." The social organizational and cultural dimensions of birth and death will be considered in terms of rites of passage, bureaucratizations, social movements, cultural differences, and historical and contemporary contexts.

SOC 230. (ANT 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are viewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival.

SOC 305. Population (3) Prerequisite: SOC 105. A study of the changes in size, composition, distribution of population and the dynamics underlying them.

SOC 306. Methods of Social Research (3) Prerequisite: SOC 105, STT 205. Introduction to the logic and methods of sociological research. Topics include the logic of social scientific inquiry; the relationship between theory and research; problem formulation; research design; conceptualization and measurement; operationalization; sampling; modes of observation; index and scale construction; introduction to analysis and interpretation of quantitative data; and ethics and politics of social research.

SOC 307. Sociological Data Analysis (2) Prerequisite: SOC 105 and STT 205. Basic instruction in computer management of social science data files, programming techniques with SPSSX, and the conduct of univariate and bivariate analysis and interpretation using instructor-provided data files.

SOC 311. (PLS 311) Techniques of Public Opinion Polling (3) Prerequisite: PLS 211 or consent of instructor. Basic skills in all phases of public opinion polling: issue focus; questionnaire construction; sample selection; interview techniques; elementary data analysis; interpretation and presentation of results. Opinion polls of current political and social issues conducted as class projects to develop these skills.

SOC 315. Urban Sociology (3) Prerequisite: SOC 105. Analysis of the history and development, social organization, and problems of the city.

SOC 316. Human Ecology (3) Prerequisite: SOC 105 and three additional hours in sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities.

SOC 325. American Minority Relations (3) Prerequisite: SOC 105. Analysis of the ascriptive bases of inequality in American society: race, ethnicity, religion and sex. Topics include sociocultural causes and consequences of prejudice and discrimination; and Europe immigration, ethnicity and assimilation.

SOC 326. Collective Behavior and Social Movements (3) Prerequisite: SOC 105. Analysis of social behavior that breaks from existing patterns and expectations, such as riots, crowds, revolution, and social movements.

SOC 333. Sociology of Mental Illness (3) Prerequisite: SOC 105. A sociological examination of the development and distribution of mental health and illness, particularly in the United States. Drawing from the works of relevant writers in the field, such as Scheff and Goffman, the course emphasizes the societal reaction approach to mental illness. Topics to be included are mental illness as deviance, the sociogenesis of mental disorder, and social stratification and mental illness.

SOC 335. The Sociology of Deviant Behavior (3) Prerequisite: SOC 105. The analysis of certain behavior in terms of deviations from norms; the application of sociological and psychological concepts and theory to deviant behavior, and the critical evaluation of non-sociological research and theories.

SOC 336. Sociology of Aging (3) Prerequisite: SOC 105. Introduction to sociological theories and methods used to explain the aging process. Topics include age stratification, adjustment to life events, housing patterns, health, and social policy.

SOC 337. Medical Sociology (3) Prerequisite: SOC 105. A sociocultural analysis of the general area of health and illness. Emphasis is given to understanding the distribution of health and illness in the United States and its impact on the patient status. The course includes a discussion of the organization and use of health care services from a sociological perspective.

SOC 338. Social Epidemiology (3) Prerequisite: SOC 105 or consent of instructor. Methods and substance of social epidemiology; demographics of illness in American society. Case studies linking environmental and behavioral variables to disease incidence examined. Specific attention to the social response to AIDS and other communicable diseases.

SOC 340. Organizations in Modern Society (3) Prerequisite: SOC 105. An introduction to the dynamics of social life in large-scale organizations. Topics include organizational social psychology, organizational structure and process, and organization-community relations.

SOC 344. The Sociology of Politics (3) Prerequisite: SOC 105 or PLS 101. Examines political institutions and political behavior from a sociological perspective. Topics include the social and economic origins of political behavior; the organization and distribution of political power and its effects on society, politics and social change.

SOC 345. Sociology of the Family (3) Prerequisite: SOC 105. Origin and development of the family as a social institution from an historical and comparative approach; analysis of forms and functions of the family; socialization, mate selection, procreation.

SOC 346. Sociology of Religion (3) Prerequisite: SOC 105. An analysis of the structure, function and process of religion, emphasizing the reciprocal relation of religion and cultural and religious differentiation and institutionalization.

SOC 347. Sociology of Education (3) Prerequisite: SOC 105. An examination of the socio-cultural factors operating at various levels of the educational process, from classroom to school system to community, in light of the changing roles of the child and education in a complex industrial society.

SOC 348. Sociology of Leisure and the Arts (3) Prerequisite: SOC 105. This course surveys existing theory and research with respect to the concept of leisure. Specific attention is devoted to sociological analyses of trends, differentials, and time expenditures which population categories exhibit in recreational, sporting, and arts activities.

SOC 350. Gender and Society (3) Prerequisite: SOC 105. The differentiation of both ascribed and achieved roles in modern society based on the variable of sex of the individual, conditions which serve to maintain or to weaken the normative patterns, and consideration of some of the consequences of differentiation. The effects of sex-role socialization on political, occupational, and educational behavior, with emphasis placed on stability and change.

SOC 355. Criminology (3) Prerequisite: SOC 105. The nature, variation and causes of crime are studied as aspects of the American culture.

SOC 360. Foundations of Social Thought (3) Prerequisite: SOC 105 and six additional hours in sociology above the introductory level. A review of the significant trends of development in sociological theory with emphasis on the relationship of theory to research.

SOC 365. Social Psychology (3) Prerequisite: SOC 105. A sociological analysis of human social interaction. Topics include symbolic interaction, socialization, interpersonal relations. Focus is on social and cultural influences on individual and group behavior.

SOC 366. Social Change (3) Prerequisite: SOC 105. The study of social and cultural change in community and society with emphasis upon the rate and degree of change, direction of change, mechanism of change, and planning of change.

SOC 375. Juvenile Delinquency (3) Prerequisite: SOC 105. The analysis and description of the problem of juvenile delinquency as it exists in a changing contemporary society.

SOC 385. The Community (3) Prerequisite: SOC 105. Structure, process and change in modern communities. Topics include analysis of the concept of community; the community as a social system; major community functions; relationships between the community and larger society; community stratification, power structure and organization.

SOC 386. Sociology of Work and Occupations (3) Prerequisite: SOC 105 and three additional hours in sociology or economics. An analysis of the place of work in society. This course examines occupational structures as the primary link between persons and the larger society. Topics to be included are the growth and development of occupational structure, occupations and technological change, occupations and organizational complexity, and other system features which influence or are influenced by the occupational structure.

SOC 390. Social Structures (3) Prerequisite: SOC 105. The course examines the concept of social structure as differentiated social positions and units and their interrelations, including bases of differentiation and integration. Examines patterns of a variety of social structures—the overall structure and patterned development of society, the structure of culture, the structure of deviance, the structure of interaction—considering consequences and interrelations.

SOC 406. Advanced Social Research Methods (3) Prerequisite: SOC 306, SOCL 306-51. A study of the social survey research process: problem formulation, literature review, instrument development, sample determination, data collection, statistical analysis, and report writing. Requirements include individual research proposals and a class research project.

SOC 415. Power and Privilege (3) Prerequisite: SOC 105 and six additional hours in sociology above the introductory level. Examination of social stratification as the system of distribution of privilege, power and prestige in modern and traditional societies. Discussion of major theories and theorists of stratification; the structure and process of systems of social inequality; the causes, correlates and consequences of socially structured inequality.

SOC 449. Sociology of Law (3) Prerequisite: SOC 105 and junior/senior standing. An analysis of the role of law in society. Special emphasis will be given to the relationship between law and social organization and the relation of sociocultural changes to substantive and procedural aspects of law. The concept of justice will also be analyzed. Law will be viewed as a collectivistic-individualistic process and as a reflection of sociocultural values.

SOC 460. Contemporary Sociological Thought (3) Prerequisite: SOC 360. Coverage of the major contemporary theoretical approaches in sociology is provided. The development of structural-functionalism, positivism, Marxian thought, interactionism, ethnomethodology, and structuralism are analyzed in terms of the structure and purposes of theory.

SOC 490. Senior Project (3) Prerequisite: SOC 105, 306, 406, and senior status. A personal study of a segment of the community will be undertaken by each major. There

will be an analytical paper written after actual data has been acquired preferably through a personal confrontation within an institutional setting.

SOC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

SOC 495. Topical Seminar (1-3) Prerequisite: SOC 105 and consent of instructor. Consideration of special topics not regularly dealt with in regular courses.

SOC 499. Honors Work in Sociology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492; 294 and 494, see explanations on p. 90.

SPANISH

(See Foreign Languages and Literatures)

CAMERON SCHOOL OF BUSINESS ADMINISTRATION

Norman R. Kaylor, *Dean*
Denis G. Carter, *Associate Dean and MBA Coordinator*
William W. Hall, *Director, Center for Business and Economics Services*
Laura A. Honeycutt, Director, *Undergraduate Advising Center*

The Cameron School of Business Administration of The University of North Carolina at Wilmington has planned its courses and curricula to be of use to the graduate in a position of responsibility as an owner of an independent business enterprise or as an employee at the decision making level in private business or in government and other non-profit organizations.

The primary function of the Cameron School of Business Administration is to teach students the basic body of knowledge they will need to enter a career in business or government and to promote the development of proficiency in practical application. The academic programs provide graduates with career opportunities in manufacturing and service organizations, marketing and sales, government, accounting firms, banks and other financial institutions. The graduate is also prepared to enter law school and graduate programs in public administration as well as for graduate study in accountancy, business administration, and economics. As complementary functions, through individual faculty efforts and the Center for Business and Economics Services, the Cameron School of Business Administration undertakes research in appropriate areas and provides related services to business and governmental units.

DEGREE PROGRAMS AND REQUIREMENTS

The B.S. degree is offered in six areas of concentration:

Accountancy	Economics
Business Management	Finance
Business Systems	Marketing

The B.A. degree with a concentration in economics is offered for those students who want to study economics in the liberal arts tradition.

REQUIREMENTS FOR ADMISSION:

Requirements for admission to the Cameron School of Business Administration are listed on page 84. Each applicant must have completed a minimum of 44 semester hours with a cumulative grade point average of 2.0 or better, with the following courses completed at the time of application:

ENG 101-102, MAT 111 or 115, *ACG 201, ECN 221.

During the semester of application each applicant must be enrolled in or have completed: MAT 151 or 161, ECN 222, *PDS 217, *ACG 203.

*Students enrolling in the B.A. program in economics are not required to complete ACG 201 or 203 and may substitute STT 205 or 215 for PDS 217.

Students may not enroll in restricted courses nor enroll in more than 15 semester hours within the school beyond preadmission courses without being formally admitted to the school.

REQUIREMENTS FOR THE B.S. DEGREE:

Students may qualify for the B.S. degree by:

(1) Successful completion of requirements as stated under Academic Regulations on pages 77-78;

(2) Attaining a minimum grade point average of 2.0 on all courses attempted in the Cameron School of Business Administration;

(3) Successful completion of the courses designated for the degree program:

(a) Basic Studies (45 semester hours): Completion of a basic studies program as defined on pages 86-87 of this catalogue. Students seeking the B.S. degree must include MAT 111 and 151 (or the equivalent) and ECN 221-222 in their basic studies program under categories (E,2) and (F), respectively.

(b) Cameron School of Business Administration Core Requirements (37 semester hours): All candidates for the B.S. degree must complete the following core requirements: ACG 201-203, PDS 217, BLA 361, ECN 324, MGT 350, MKT 340, FIN 335, PDS 313, PDS 314, PDS 317, MGT 455.

(c) Concentration Courses: Each candidate for the B.S. degree must complete one of the following groups of courses for a concentration:

ACCOUNTANCY (24 semester hours): ACG 301-302-401, ACG 305, ACG 404, ACG 407, plus two courses from ACG 306, ACG 307, ACG 309, ACG 405, ACG 406, and BLA 461. Students planning to write the CPA examination are advised to extend their study beyond the required 124 semester hours in order to complete the following courses: ACG 309, ACG 405, ACG 406, BLA 461.

BUSINESS MANAGEMENT (18 semester hours): BLA 461, MGT 358, MGT 450, plus three courses from MGT 351, MGT 352, MGT 353, MGT 354, MGT 356, MGT 453, MGT 456, MGT 495.

BUSINESS SYSTEMS (18 semester hours): PDS 318, PDS 414, and one PDS course numbered above 299, plus Option (1) or Option (2):

Option (1) Information Systems: PDS 315, PDS 413, PDS 415

Option (2) Production Systems: PDS 319, PDS 417, ECN 320

ECONOMICS (18 semester hours): ECN 321-322, ECN 328, ECN 495, plus two courses (one of which must be numbered above 399) from ECN 323, ECN 325, ECN 326, ECN 329, ECN 421, ECN 422, ECN 426, ECN 427, ECN 428.

FINANCE (18 semester hours): FIN 330, FIN 336, FIN 436, FIN 430 or 437, plus two courses (one of which must be numbered above 399) from FIN 331, FIN 332, FIN 430, FIN 431, FIN 437, FIN 438, FIN 495.

MARKETING (18 semester hours): MKT 341, MKT 349, MKT 445, plus three courses from MKT 344, MKT 346, MKT 347, MKT 442, MKT 447, MKT 448, MKT 495.

(d) Elective Courses: completion of elective courses sufficient to complete a minimum of 124 semester hours of course credit. Electives are to be chosen by the student after con-

sulting with the faculty advisor, with no more than nine semester hours of electives selected from courses in the Cameron School of Business Administration.

Students seeking the B.S. degree with a concentration in accountancy are limited to no more than six semester hours of electives from courses in the Cameron School of Business Administration.

(4) Students seeking the B.S. degree with a concentration in accountancy must also earn a minimum grade point average of 2.0 on all accounting courses attempted in the Cameron School of Business Administration.

REQUIREMENTS FOR THE B.A. DEGREE:

Students may qualify for the B.A. degree by:

(1) Successful completion of requirements as stated under Academic Regulations on pages 77-78;

(2) Attaining a minimum grade point average of 2.0 on all economics courses attempted in the Cameron School of Business Administration; and

(3) Successful completion of the courses designated for the degree program:

(a) Basic Studies (45 semester hours): Completion of a basic studies program as defined on pages 86-87 of this catalogue. Students seeking the B.A. degree must include MAT 111 and 151 (or the equivalent) and ECN 221-222 in their basic studies program under categories (E,2) and (F), respectively.

(b) Concentration Courses (27 semester hours): PDS 217 or STT 205 or STT 215, ECN 321-322, ECN 324, ECN 326 or 421, ECN 328, ECN 495, plus six additional semester hours in Economics courses numbered above 299.

(c) Collaterals (21 semester hours): 21 semester hours from at least two of the following: Anthropology, Geography, History, Political Science, Psychology, Sociology. A minimum of six hours must be taken in at least two areas, and at least nine hours must be courses numbered above 299.

(d) Electives (31 semester hours): Elective courses selected after consultation with the student's academic advisor.

ACCOUNTANCY AND BUSINESS LAW

Mr. Appleton, *Chairperson.* Dr. Baker, Dr. Courtenay, Mr. Davenport, Mr. Eaglin, Mr. Earney, Dr. Elikai, Mr. Hanson, Dr. Kaylor, Dr. Marts, Mr. Roscher, Ms. Sawyer, Mr. Zeko.

The Department of Accountancy and Business Law provides courses and other academic support for the B.S. degree with a concentration in accountancy.

The B.S. degree with a concentration in accountancy provides the student with the analytical foundation of the discipline of accountancy. Included are the special tools and techniques of planning and control using financial and managerial accounting, income taxes, cost analysis, and systems.

Students establish qualifications for careers as professional certified public accountants, and in industrial, governmental, and other positions requiring managerial and analytical skills.

The accounting concentration provides an excellent background for graduate and other professional education.

The elements of planning, administration, and control covered in the accounting courses are essential to all areas of business. Many of the courses offered benefit students concentrating in other fields by furnishing a comprehensive background of business procedures and financial relationships. Likewise, students concentrating in accountancy find it advantageous to elect as many courses as possible in other areas of business, especially the quantitative fields.

A graduate of the Cameron School of Business Administration who has completed a concentration in accountancy is permitted by the State Board of Accountancy of North Carolina to write the CPA examination. The student is also qualified by the Institute of Management Accounting to write the CMA examination.

The courses in business law and legal environment provide the study of how the legal environment influences and is influenced by changing social and ethical values. Courses include study of administrative law and the Uniform Commercial Code as well as the organization and role of business enterprises in society and their relationships in government and society.

Accountancy Course Descriptions

(Department of Accountancy and Business Law)

ACG 201. Financial Accounting (4) Prerequisite: MAT 111. An introduction to the basic framework of accounting for both students concentrating in accountancy and other disciplines. Includes preparation of financial records, working papers, and financial statements, and analysis of the major financial statements with emphasis on the underlying accounting concepts and constraints.

ACG 203. Managerial Accounting (3) Prerequisite: ACG 201. An introduction to the concepts and techniques used by management to analyze and interpret accounting data in the organization.

ACG 301-302-401. Intermediate Accounting I, II, and III (3-3-3) Prerequisite: ACG 203. Analysis of traditional financial accounting topics and theory. Examines recent developments in accounting measurement and promulgations of the leading professional accounting organizations. ACG 301 emphasizes development of accounting standards and theory, financial statements, current assets and current liabilities. ACG 302 emphasizes plant assets, long-term investments, long-term liabilities, stockholders equity, revenue recognition and income tax allocation. ACG 401 emphasizes pensions and leases, cash flow statements, accounting for changing price levels, financial statement analysis, foreign currency transactions, corporate liquidations and reorganizations, and segment and interim reporting.

ACG 305. Cost Accounting (3) Prerequisite: ACG 203. Costs for planning and control, including the role of the accountant in the organization; cost behavior and volume-

profit relationships; responsibility accounting; standard costs; flexible budgets; cost structures for control and motivation; and relevant costs for nonroutine decisions.

ACG 306. Accounting Information Systems (3) Prerequisite: ACG 203 and PDS 313. Basic concepts of accounting information systems including both manual and computer based systems. Examines transaction processing systems with emphasis on internal controls and documentation, user support systems, and systems development.

ACG 307. Administrative Accounting and Control (3) Prerequisite: ACG 305 and PDS 314. The controllership function and analytical methods to serve the information needs of decision making and control; advanced topics in cost accounting, forecasting, budget design and preparation, and responsibility accounting.

ACG 309. Accounting for Business Combinations (3) Prerequisite: ACG 302. A study of accounting problems in parent-subsidiary interrelationships, mergers and consolidations, partnerships, and non-profit accounting. Emphasis on consolidated financial statements.

ACG 402. Specialized Accounting Problems (3) Prerequisite: ACG 305, 309, and 401. Advanced study of accounting practice and theory with emphasis on preparation for the CPA examination. Includes study of official pronouncements of the American Institute of Certified Public Accountants and the Financial Accounting Standards Board.

ACG 404. Federal Income Taxes I (3) Prerequisite: ACG 203. Study of federal income taxation of individuals. Includes business expenses and revenues, depreciation, and property transactions and the history and development of taxation.

ACG 405. Federal Income Taxes II (3) Prerequisite: ACG 404. The study of corporate, partnership, estate and trust taxation. Emphasis is on corporation and partnership organization, operations, distributions, liquidation and reorganization.

ACG 406. Non-Profit Organization Accounting (3) Prerequisite: ACG 302. Accounting for not-for-profit organizations including governments, colleges and universities, hospitals, charities, and other not-for-profit organizations. Emphasis is on objectives and preparation of financial statements, the use of managerial reports, and budgetary data.

ACG 407. Auditing (3) Prerequisite: ACG 302. Objectives, standards and procedures involved in examining and reporting on financial statements of business organizations by independent auditors in light of ethical and legal obligations.

ACG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

ACG 498. Accounting Internship (3) Prerequisite: Senior status and consent of faculty supervisor. Involves the application of professional accounting skills required in the academic environment to the role of the practicing professional accountant. The participant will receive practical training and experience under the guidance of the accounting staff of a local business or government organization and a faculty supervisor.

Open only to students concentrating in accountancy. Available internships will be filled on a competitive basis.

ACG 499. Honors Work in Accounting (2-3) Prerequisite: Senior standing. Independent work for honors students.

Business Law Course Descriptions

(Department of Accountancy and Business Law)

BLA 361. Legal Environment of Business (3) Prerequisite: Junior or senior standing. Study of the organization and role of business enterprises in society and their relationships in government. Examines how the legal environment is influenced by changing social and ethical values. Topics include agency, antitrust, forms of business organization, environmental regulation, equal opportunity, labor law, product liability, and property rights.

BLA 461. Commercial Law (3) Prerequisite: Junior or senior standing. Study of the commercial legal environment in which business enterprises operate. Examines the law of contracts, sales and warranties, security interests, commercial paper, and debtor and creditor rights.

BLA 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

BLA 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

ECONOMICS AND FINANCE

Dr. Hill, *Chairperson.* Dr. S. Bojanic, Dr. Carter, Dr. Comeskey, Dr. Copley, Dr. Farrell, Dr. Hall, Dr. Harriss, Dr. Howell, Dr. Lawson, Dr. Morgan, Dr. Ross, Dr. Wadman,

The Department of Economics and Finance provides courses and other academic support for the B.S.. degree with concentrations in economics and finance and the B.A. degree with a concentration in economics.

The economics and finance programs prepare students for careers which emphasize an understanding of the operation of the economy and the proper choice of policies by both government and business enterprises.

The economics concentrations represent a more general area of study, preparing the student to enter government service, industry, or to pursue a graduate program in economics, business, public administration or other social science disciplines.

The B.S. degree with a concentration in economics is designed to provide orientation of the individual and the firm in economic society. The student is required to supplement the study of economics with a variety of business and accounting courses.

The B.S. degree with a concentration in finance consists of three separate but related areas—business finance, investments, and financial institutions. The finance curriculum prepares students for graduate study and for careers in corporate financial management, the investments and securities business, and the management of banking and nonbank financial institutions. The generalized applicability of finance and the basic tools of financial analysis are emphasized in the courses.

The B.A. degree with a concentration in economics is designed for the student who wants to study economics in the liberal arts tradition. The study of a wide variety of economics courses is supplemented by a study of history and the social sciences. Both degree programs develop an understanding of contemporary economic problems and institutions and provide a study of economic issues both in an historical setting and under conditions of change.

Economics Course Descriptions

(Department of Economics and Finance)

ECN 125. Survey of Economics (3) An introduction to economics principles for non-business and non-economics majors. Current analysis rather than theoretical analysis is utilized to present and show the relevance of economics principles. (Not open to students who have earned credit for either ECN 221 or ECN 222.)

ECN 221. Principles of Economics—Micro (3) Prerequisite: MAT 111. Analysis of decision-making processes and economic equilibrium for the individual firm and consumer at an introductory level.

ECN 222. Principles of Economics—Macro (3) Prerequisite: ECN 221. Aggregate economic analysis examining the effects of fiscal and monetary policy upon aggregate employment, income and prices at an introductory level.

ECN 320. Managerial Economics (3) Prerequisite: PDS 314. The theory and application of economics principles and methodology to the decision making process under conditions of uncertainty. Includes the following topics: demand theory and analysis; cost and production conditions facing the firm; forecasting; resource allocation and management of inputs; pricing, profit strategies, and market structure; and finance and investment decision making for the firm.

ECN 321. Intermediate Price Theory (3) Prerequisite: MAT 151 and ECN 222. A theoretical analysis of individual consumer and firm behavior and general equilibrium.

ECN 322. National Income Analysis (3) Prerequisite: ECN 321. A theoretical analysis of the determination of aggregate income, aggregate employment, and the average price level and role of monetary and fiscal policy in the determination of such.

ECN 323. Business, Government and Society (3) Prerequisite: ECN 222. A broad study of the role of business enterprises in society and their relationships with government. Examines influence on decision making of changing social values, changing political, legal, and regulatory environments.

ECN 324. Money and Capital Markets (3) Prerequisite: ECN 222. An introduction to the financial and economic environment within which a firm must operate. Analysis of the sources and the cost and availability of funds in a domestic and international setting; analysis of international monetary flows; financial decision making in an integrated world economy.

ECN 325. (EVS 325) Environmental Economics (3) Prerequisite: ECN 125 or 221. Application of economics concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives.

ECN 326. Comparative Economic Systems (3) Prerequisite: ECN 125 or 222. Analysis of economic systems operating under capitalism, socialism, communism, and fascism; institutions and organization of production and government; decision-making; distribution of income; problems of developing nations.

ECN 328. Public Finance (3) Prerequisite: ECN 222. Study of state, local, and federal government revenue and expenditures; theory of taxation, tax shifting and incidence; theory of public goods, fiscal neutrality and government regulation; methods of achieving efficiency in government benefit-cost analysis, program budgeting (PPB), and pricing of government services.

ECN 329. Industrial Organization (3) Prerequisite: ECN 222. A theoretical and empirical study of how the structure of industry affects the conduct and performance of the firm; covers government regulation, control and influence in business activity with respect to structure, conduct and performance.

ECN 421. History of Economic Thought (3) Prerequisite: ECN 222. Scientific economic thought and philosophy from ancient to modern times. Open-ended as to dates of time period covered. Primary emphasis is on topics as opposed to schools of thought.

ECN 422. Econometrics (3) Prerequisite: PDS 217 and ECN 321. An introduction to the formalization of economic hypotheses into testable relationships and the application of appropriate statistical techniques. Theoretical aspects are covered, but primary emphasis is on computer application utilizing regression analysis.

ECN 426. International Trade and Finance (3) Prerequisite: ECN 222. A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates and balance of payments problems.

ECN 427. Labor Economics (3) Prerequisite: ECN 222. An analysis of the demand for and the supply of labor at the individual and the aggregate level; labor unions and collective bargaining.

ECN 428. Regional Growth and Development (3) Prerequisite: ECN 222. Theories of subnational or regional economic growth. Measures of regional economic policies to alleviate problems resulting from disparate rates of regional economic growth.

ECN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

ECN 495. Senior Seminar in Economics (3) Prerequisite: ECN 322 and consent of instructor. An examination of current problems in economics organized on a discussion-research basis. The content of the course will vary as changing conditions and economic priorities require the use of new approaches to deal with current issues.

ECN 498. Internship in Economics (1-3) Prerequisite: Senior status and consent of department chairperson. Involves the application of economics concepts in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

ECN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

Finance Course Descriptions

(Department of Economics and Finance)

FIN 235. Personal Finance (3) Study of individual and family financial decisions. Designed to prepare the student to exercise intelligent control over income, expenditures, borrowing, savings and investments. Recommended elective for non-business majors. (Not open to students who have earned credit for FIN 330.)

FIN 330. Principles of Investments (3) Prerequisite: ACG 201 and ECN 222. An introduction to alternative investments, with major emphasis on financial instruments. Practical descriptive material and relevant theoretical applications. Topics include stocks, bonds, and other financial alternatives.

FIN 331. Real Estate (3) Prerequisite: ACG 201 and ECN 222. Principles of property management and practices relating to appraisal, sales, ownership, control, financing, and transfer of real property.

FIN 332. Risk Management and Insurance (3) Prerequisite: ACG 201 and ECN 222. An introduction to the risk management function and to the basic methods used to handle risks facing the business enterprise, families and individuals. Emphasis is on the insurance method of handling risk with study of the concepts underlying insurance, the fundamentals of insurance contracts, and a broad selection of policy coverages in the property and liability, and life and health fields.

FIN 335. Business Finance (3) Prerequisite: ACG 203, PDS 217, and ECN 222. An introduction to the finance function of business enterprise and to the analytical techniques used in making investment and financing decisions.

FIN 336. Capital Budgeting Analysis (3) Prerequisite: FIN 335. The study of the theory and practice of capital expenditure management including investment decisions and their impact on cash flows, business firm valuation, and the capital asset pricing model. Use of cases and financial analysis.

FIN 430. Investment Management (3) Prerequisite: FIN 330 and 335. An analytical approach to the valuation of stocks, bonds and options and the placement of those securities in Markowitz-efficient portfolios. Technical and fundamental analysis, market efficiency and valuation methods are examined. Both application and theory are emphasized.

FIN 431. Real Estate Investment Analysis (3) Prerequisite: FIN 335. The decision making process in real estate investment analysis including risk and return, financing alternatives, tax implications, and pricing and development alternatives.

FIN 436. Financial Management (3) Prerequisite: FIN 330 and 336. Financial analysis and decision making in the modern business organization. Theoretical foundations of financial decision making are emphasized, including both working capital and fixed capital requirements.

FIN 437. Commercial Bank Management (3) Prerequisite: ECN 324 and FIN 335. A case study course in the management of commercial banks. Major emphasis on defining the functional areas within the commercial bank system and the associated decision making process.

FIN 438. Commercial Lending and Credit Analysis (3) Prerequisite: FIN 335. An examination of the sources of commercial loans, financial statement analysis, working capital, the elements and purposes of commercial lending policies, the credit analysis decision, and follow-up procedures for commercial lending.

FIN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

FIN 495. Senior Seminar in Finance (3) Prerequisite: FIN 436 and senior standing. An examination of current problems in finance. Course content will vary as new techniques are developed to respond to a dynamic financial environment.

FIN 498. Internship in Finance (1-3) Prerequisite: Senior status and consent of department chairperson. Involves the application of financial concepts in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

FIN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

MANAGEMENT AND MARKETING

Dr. Latham, *Chairperson.* Dr. Adams, Dr. A. Anderson, Dr. D. Bojanic, Dr. Engdahl, Dr. Harper, Dr. Hoffman, Dr. Honeycutt, Dr. Howe, Dr. J. Hunt, Dr. T. Hunt, Dr. Keating, Dr. West.

The Department of Management and Marketing provides courses and other academic support for the B.S. degree with concentrations in business management and marketing.

The management and marketing degree programs provide preparation for careers in product and service organizations. Each program of study is based on a broad educational foundation combined with courses in accounting, finance, management, marketing, and economics. Both programs are also designed for students who wish to pursue other professions in legal, governmental, and not-for-profit institutions. Students are permitted some latitude in selecting courses and may choose to concentrate in management or marketing. Within the B.S. degree program with a concentration in business management, the student may elect an emphasis in business management or a program of courses designed to meet the specific interest of the student. The student may elect from such areas as human resource management, organization behavior, small business management, and business information systems and should consider additional electives in computer science and the social sciences.

Management Course Descriptions

(Department of Management and Marketing)

MGT 350. Organization Theory and Behavior (3) Prerequisite: ACG 201 and ECN 221. Study of theories, research and concepts underlying the structure and processes of complex organizations. Emphasis on problem solving issues and applications in organization design, leadership, motivation and interpersonal communications.

MGT 351. Business Communications Skills (3) Prerequisite: ENG 102, ACG 201, ECN 221. Fundamentals of business communications with emphasis on preparing formal business reports. Emphasis is on the communication process in management, including primary and secondary research, business writing, and making oral presentations.

MGT 352. International Management (3) Prerequisite: ECN 222 and MGT 350. Study of management practices in the international business arena. Emphasis on the necessity of understanding global business interdependencies. Particular attention to developing sensitivity to other cultures, values, customs, and beliefs and their effects on business decisions and practices.

MGT 353. Entrepreneurship (3) Prerequisite: ACG 203 and MKT 340. Primary focus on starting a new business. Specific areas include identifying business opportunities, conducting feasibility studies, developing the business plan, evaluating alternative ways of financing new ventures and identifying the appropriate legal form of organization. Purchasing an existing business and acquiring a franchise are also addressed.

MGT 354. Managing Innovation and Technology (3) Prerequisite: MGT 350. Development and adoption of new technology in corporate operations. Attention directed to creating an environment that fosters continuous improvement through experimentation, innovation, and change. Topics include the nature of technology, its role in business strategy, technological forecasting, the creative process, organization and management of professional personnel, and project management techniques.

MGT 356. Human Resource Management (3) Prerequisite: MGT 350. Evaluation of concepts and approaches used in human resource management and development. Study of manpower planning, selection procedures, performance review, compensation and

benefits, equal employment/affirmative action factors, and labor relations. Emphasis is on how personnel specialists and operating managers can improve organizational performance.

MGT 358. Organizational Behavior (3) Prerequisite: MGT 350. Application of behavioral science concepts in the management of organizations. Emphasis on increasing productivity on the individual, group, and organizational level. Particular attention directed to analyzing organizations, developing motivational programs, designing enriching jobs, leadership development, and managing organizational change.

MGT 450. Strategic Management (3) Prerequisite: MGT 350. Examination of strategy as an economic and planning process and as a matter of organizational decision making within a social, political and cultural process. Particular attention directed to examining the increasingly turbulent environment within these contexts.

MGT 453. New Venture Management: (3) Prerequisite: MGT 350, MKT 340, and FIN 335. Examination of the challenges associated with maintaining a high rate of growth in relatively new firms. Emphasis on new product and service development, financial planning and control, and operational aspects of new venture management including supplier relations, sources of funding, and credit practices.

MGT 455. Business Policy (3) Prerequisite: MGT 350, PDS 317, BLA 361, MKT 340, FIN 335. Capstone course integrating the functions and policies of business decision making at the policy making level of management. Case study method is used.

MGT 456. Employee-Management Relations (3) Prerequisite: MGT 350. Analysis of management techniques for the administration of labor agreements; study of collective bargaining and union-management relations; and evaluation of labor relations in union and non-union organizations. Case studies provide realistic experience for both private and public sector labor relations.

MGT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

MGT 495. Senior Seminar (3) Prerequisite: MGT 350 and senior standing. Special topics in management not regularly addressed in other management courses.

MGT 498. Internship In Management (1-3) Prerequisite: Senior standing and consent of faculty supervisor. Involves the application of management knowledge in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

MGT 499. Honors work in Management (2-3) Prerequisite: Senior standing. Independent work for honors students.

Marketing Course Descriptions

(Department of Management and Marketing)

MKT 340. Principles of Marketing (3) Prerequisite: ACG 201 and ECN 221. Introduction to the concepts, activities and decisions that relate to the marketing function in business and non-business organizations in domestic and international settings. Focus on development and implementation of marketing strategies through the use of marketing mix variables of product, price, place, and promotion.

MKT 341. Marketing Research (3) Prerequisite: PDS 217 and MKT 340. The development and utilization of marketing research techniques for decision making. Emphasis on the specification, accumulation, analysis, interpretation and presentation of information to help management understand the environment, identify problems and opportunities, and develop and evaluate courses of marketing action.

MKT 344. Distribution Management (3) Prerequisite: MKT 340. An introduction to physical distribution from an institutional and managerial perspective. Study of channel structure, legal factors, performance measurement, inventory control, and trends in the channel environment. Emphasis on the design and management of a physical distribution system.

MKT 346. Retail Management (3) Prerequisite: MKT 340. Examination of the principles and methods of retailing. Study of social, political, ethical, and economic environments. Emphasis on market segmentation, merchandising, and managerial control.

MKT 347. Promotion Management (3) Prerequisite: MKT 340. The promotion mix, with an emphasis on advertising and sales promotion, as a component of the marketing mix and overall organizational strategy from the perspective of the marketer, advertiser, agency, consumer and public.

MKT 349. Consumer Behavior (3) Prerequisite: MKT 340. Behavioral science concepts and principles and how they contribute to effective and efficient marketing activities from the perspective of the consumer, marketer and public policy maker.

MKT 442. International Marketing (3) Prerequisite: MKT 340. Focus is on the special framework in which international marketing is conducted. Influence of international institutions, culture, stage of economic development, geography and demography are covered. Emphasis on multinational marketing problems and opportunities in an ever changing world.

MKT 445. Marketing Management (3) Prerequisite: MGT 350, MKT 341 and senior standing. Concepts of demand analysis, formulating marketing strategy, establishing policies and procedures, coordinating marketing action, and evaluating performance.

MKT 447. Services Marketing (3) Prerequisite: MKT 340. A study of the marketing of services with emphasis on the distinctions that exist between marketing intangibles and tangible products. The managerial implications and strategies available in services marketing are also examined.

MKT 448. Sales Management (3) Prerequisite: MGT 350 and MKT 340. Focus on developing and maintaining an effective sales organization. Emphasis on the role of the salesperson, motivating the sales force, and designing and implementing selling strategies.

MKT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

MKT 495. Seminar in Marketing (3) Prerequisite: MKT 341 and senior standing. Special topics in marketing not regularly addressed in other marketing courses.

MKT 498. Internship in Marketing (1-3) Prerequisite: Senior standing and consent of faculty supervisor. Involves the application of marketing knowledge in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or a not-for-profit organization and a faculty supervisor.

MKT 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

PRODUCTION AND DECISION SCIENCES

Dr. Schell, *Chairperson.* Dr. J. Anderson, Dr. Badarinathi, Ms. Benson, Dr. Garris, Dr. Gowan, Ms. Honeycutt, Dr. Rosen.

The Department of Production and Decision Sciences provides courses and other academic support for the B.S. degree with a concentration in business systems.

Each course in the department focuses on analytical approaches to decision making in business organizations. Core courses offered by the department and required of all students in the Cameron School of Business Administration include statistical analysis, management science, management information systems, and production and operations management.

Beyond the core requirements, a concentration in business systems is designed to prepare students for positions as analysts in either management information systems or production systems. Business Systems students will enhance their understanding of and develop their skills with quantitative methods used to solve business problems. Those methods will be applied within a framework of systems concepts and will enable the student to approach and solve problems in a structured way.

Courses in the concentration depend heavily upon the computer and will give students the opportunity to develop practical skills with that most essential business tool. Students contemplating the degree in business systems are encouraged to take at least one introductory course in computer programming in the College of Arts and Sciences prior to applying for admission to the Cameron School of Business Administration.

Production and Decision Sciences Course Descriptions

(Department of Production and Decision Sciences)

PDS 217. Statistical Analysis for Business and Economics (3) Prerequisite: MAT 111 or 115. Classification and presentation of business and economics data, probability and expected value, statistical inference, simple linear regression and correlation analysis and forecasting.

PDS 313. Introduction to Management Information Systems (3) Prerequisite: ACG 201 and MGT 350. Introduction to the nature, role and implementation of information systems in organizations. Topics include specification of information requirements in the functional areas of organizations, and implementation considerations important to both the MIS manager and the non-MIS manager.

PDS 314. Introduction to Management Science (3) Prerequisite: MAT 151, PDS 217, ACG 201, and ECN 222. Deterministic and probabilistic models applied to economics and business decision theory. Topics include linear programming, inventory control, PERT/CPM, waiting lines, and simulation. Emphasis on quantitative techniques and how they can be applied and interpreted by managers. Computer applications introduced.

PDS 315. Management of Database Systems (3) Prerequisite: PDS 217 and 313. Study of database structure, development, and implementation. Topics include hierarchical, network, and relational database organization; data dictionary; normalization; queries; and report generation.

PDS 316. Computer Concepts and Applications (3) Prerequisite: PDS 313. Introduction to computer hardware, systems software, and applications software development. Laboratory projects focus on the development of applications using the BASIC programming language and Fourth Generation Languages (4GL's). Two lecture hours and two laboratory hours each week.

PDS 317. Production and Operations Management I (3) Prerequisite: PDS 314 and MGT 350. Analysis of concepts, tools, and techniques used in production planning and control, materials management, inventory control, and labor force management. Particular attention directed to the study of production process alternatives.

PDS 318. Advanced Statistical Analysis for Management (3) Prerequisite: PDS 217. Statistical inference as applied to management decision making. Topics include linear and non-linear regression models, analysis of variance and covariance, time series analysis, experimental design, and nonparametric statistical techniques. Applications require the use of statistical analysis programs on the computer.

PDS 319. Quality Control (3) Prerequisite: PDS 317. An introduction to the quantitative and qualitative concepts used in the control of quality, in both the manufacturing and service environments. Particular emphasis placed on the statistical tools used in process control and acceptance sampling, along with extensive computer examples and exercises.

PDS 413. Management Information Systems Development (3) Prerequisite: PDS 313. Examination of the systems development life cycle and structured systems analysis and design techniques. Application of selected techniques, including the use of CASE software, through student projects.

PDS 414. Introduction to Business Simulation (3) Prerequisite: PDS 317. Introduction to simulation models as tools in the analysis of business problems. Discrete event simulation models and dynamic information feedback models are introduced through the use of a computer simulation language.

PDS 415. Decision Support Systems (3) Prerequisite: PDS 413. Examination of the process of specifying and implementing decision support systems in organizations. Topics include an overview of current uses of artificial intelligence and expert systems in the business environment.

PDS 417. Production and Operations Management II (3) Prerequisite: PDS 317. Further study in the design, management and control of production systems. Topics include logistics management, capacity planning, scheduling, just-in-time, optimized production techniques and quality assurance. Emphasis on the use of computer to analyze complex production and operations management case problems.

PDS 418. Business and Economic Forecasting (3) Prerequisite: PDS 318 and consent of instructor. Development of an approach to forecasting through the study of time-series techniques including moving averages, exponential smoothing, regression, and Box-Jenkins.

PDS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairperson.

PDS 498. Business Systems Internship (3) Prerequisite: Senior status and consent of faculty supervisor. Involves the application of quantitative and systems skills developed in the academic environment to problems in a real-world operating environment. The participant will receive practical training and experience under the guidance of the staff of a local business or government organization and a faculty supervisor. Available internships are filled on a competitive basis.

PDS 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

SCHOOL OF EDUCATION

Roy E. Harkin, *Dean*
Calvin L. Doss, *Associate Dean*
Robert E. Tyndall, *Associate Dean*

The School of Education at The University of North Carolina at Wilmington offers programs of study leading to the Bachelor of Arts degrees in elementary education, middle grades education, and special education and programs leading to secondary (9-12) and special subjects (K-12) teacher certification. In addition, graduate programs in elementary education, reading education, special education, educational administration and supervision and the Master of Arts in Teaching are offered.

Responsibility for the degree and certification programs within the School of Education is shared by the Department of Educational Design and Management and the Department of Curricular Studies.

Students wishing to pursue teacher preparation programs must be formally admitted to the School of Education and to the Teacher Education Program. Admission is required before enrollment in education courses in the upper division (300 and 400 level). Requirements for admission are:

1. Completion of the university requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.
2. Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.
3. Completion of four semesters or two academic years of full-time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale.
4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

EDUCATIONAL DESIGN AND MANAGEMENT

Dr. Tyndall, *Chairperson*. Dr. Applefield, Dr. Bryan, Dr. Doss, Mr. Eaglin, Dr. Earle, Dr. Ellis, Dr. Harkin, Dr. A. Hayes, Dr. Hulon, Dr. Johnston, Dr. Joslin, Dr. Mullendore, Dr. Wagoner.

The Department of Educational Design and Management provides basic professional education courses for the undergraduate programs in elementary, middle grades, secondary, and special education and is responsible for the program of study leading to the Master of Education degree in educational administration and supervision.

The Master of Education program in educational administration and supervision is described in the Graduate School Catalogue.

CURRICULAR STUDIES

Dr. H. Hayes, *Chairperson*. Dr. Andrews, Dr. Bachner, Dr.Bartolome, Dr. Burton, Dr. Huber, Dr. Jones, Dr. LaNunziata, Dr.Lockledge, Dr. Raab, Dr. Thomas, Dr. Walker, Dr. Wright.

The Department of Curricular Studies is responsible for the programs of study leading to the Bachelor of Arts degrees in elementary education, middle grades education, and special education, the programs leading to secondary (9-12) and special subjects (K-12) teacher

certification, the programs leading to the Master of Education in elementary education, in reading education, and in special education, as well as the Master of Arts in Teaching.

The Bachelor of Arts program in elementary education leads to North Carolina teacher certification in grades kindergarten through six.

The Bachelor of Arts program in middle grades education leads to North Carolina teacher certification in grades six through nine.

The special education program prepares teachers to serve mildly handicapped children from kindergarten through grade 12 in public schools and in various other service agencies and leads to North Carolina teacher certification in one of three areas of exceptionality: learning disabilities, mental retardation, and behaviorally/emotionally handicapped.

Each degree program is designed to meet North Carolina State Board of Education guidelines for teacher certification and includes recommended courses in basic studies, professional education and collateral areas, and a content specialization. Adjustments in program requirements are made as guidelines change. All programs offered by the School of Education are accredited by the appropriate state, regional, and national accrediting agencies.

The Master of Education programs in elementary education, reading education, and special education (cross-categorical) are described in the Graduate School Catalogue.

The Master of Arts in Teaching includes a professional core and academic tracks in biology, chemistry, English, history, and mathematics. The program is described in the Graduate School Catalogue.

DEGREE REQUIREMENTS FOR ELEMENTARY EDUCATION

Basic Studies

Courses listed below are selected to meet North Carolina State Board of Education guidelines for elementary teacher certification. They only partially satisfy university basic studies requirements.

English Composition (six semester hours)
- ENG 101
- ENG 102

Physical Education (two semester hours)
- PED 101

Humanities (12 hours)
- COM 105
- English Literature
- History
- Philosophy and Religion

Fine Arts (six semester hours)
- Art or Music
- FNA 110

Natural Science and Mathematics (13 semester hours)
- (Choose one biological and one physical science. A lab is required.)
- Natural Sciences (seven semester hours)
- MAT 141 and 142

Social and Behavioral Sciences (six semester hours)
- PLS 101
- SOC/ANT 105 or 205

Professional Core

EDN 200	Teacher, School and Society
EDN 203	School Learning
EDN 301	Instructional Design
EDN 302	Introduction to Educational Computing
EDN 303	Instructional Technology
EDN 304	Classroom Evaluation and Research
PSY 223	Lifespan Human Development

Professional Education

EDN 319	Individualizing Instruction
EDN 322	The Teaching of Mathematics, (K-6)
EDN 334	Social Studies Curriculum and Instruction, (K-6)
EDN 336	The Teaching of Science and Health, (K-6)
EDN 340	Reading Foundations, (K-9)
EDN 344	Literature in the Elementary School, (K-6)
EDN 348	The Teaching of Communication Arts, (K-6)
HEA 304	Health and Safety in Education, (K-9)
	or
HEA 105	Individual Well-Being

Professional Semester

EDN 410	Seminar in Education, (K-6)
EDN 411	Practicum, (K-6)

Academic Concentration

An academic concentration of thirty semester hours is required. A maximum of six semester hours of basic studies may be included in the academic concentration. Specific course requirements of the various concentrations may be obtained from the academic advisors within the School of Education. Academic concentrations may be selected from the following disciplines: anthropology, art, biology, chemistry, drama, English, French, geography, geology, history, marine biology, mathematics, music, philosophy and religion, political science, psychology, sociology, and Spanish.

A grade of "C" or better is required of all courses in the elementary education professional core and professional specialty area. Students may repeat courses in which they earn a grade lower than a "C" only with the permission of the dean of the School of Education.

DEGREE REQUIREMENTS FOR MIDDLE GRADES EDUCATION

Basic Studies

Courses specified below are selected to meet North Carolina State Board of Education guidelines for middle grades teacher certification. They only partially satisfy university basic studies requirements.

English Composition (six semester hours)

ENG 101
ENG 102

Physical Education (two semester hours)
PED 101
Humanities (12 semester hours)
COM 105
English Literature
History
Philosophy and Religion
Fine Arts (six semester hours)
One from Art or Music
FNA 110
Natural Science and Mathematics (13 semester hours)
Natural Sciences (seven semester hours)
(Choose one biological and one physical science. A lab is required.)
MAT 141 and 142
Social and Behavioral Sciences (six semester hours)
PLS 101
SOC/ANT 105 or 205

Professional Core

EDN 200	Teacher, School and Society
EDN 201	School Learning
EDN 301	Instructional Design
EDN 302	Introduction to Educational Computing
EDN 303	Instructional Technology
EDN 304	Classroom Evaluation and Research
PSY 223	Lifespan Human Development

Professional Education

EDN 318	The Middle School
EDN 319	Individualizing Instruction
EDN 352	Developing Reading Competence in the Middle Grades
HEA 105	Individual Well-Being
	or
HEA 304	Health and Safety Education, (K-9)

Middle school methods course for academic concentration
A second academic area middle school methods course

Professional Semester

EDN 410	Seminar in Education, (6-9)
EDN 411	Practicum, (6-9)

Academic Concentration

An academic concentration of at least thirty semester hours is required. Specific course and hour requirements may be obtained from the academic advisors within the School of Education. Academic concentrations may be selected from the following disciplines: biology, chemistry, English, history, geography, geology, and mathematics.

A grade of "C" or better is required of all courses in the professional core and professional specialty area. Students may repeat courses in which they earned a grade of lower than "C" only with the permission of the dean of the School of Education.

DEGREE REQUIREMENTS FOR SPECIAL EDUCATION

General Requirements In Special Education:

Basic Studies

Students should follow basic studies requirements of The University of North Carolina at Wilmington as outlined in a previous section of the catalogue.

Professional Core

EDN 200	Teacher, School and Society
EDN 203	School Learning
EDN 301	Instructional Design
EDN 302	Introduction to Educational Computing
EDN 303	Instructional Technology
EDN 304	Classroom Evaluation and Research
PSY 223	Lifespan Human Development

Curricular Foundations

EDN 322	Teaching of Mathematics, (K-6)
EDN 340	Reading Foundations, (K-6)

Special Education Foundations

EDN 260	Introduction to Exceptional Children
EDN 367	Behavior Management Techniques
EDN 368	Diagnostic Techniques in Special Education
EDN 369	Prescription Development in Special Education
EDN 374	Special Education Curriculum and Instruction

Area of Emphasis

Students must choose one of the following emphases:

1. Behaviorally/Emotionally Handicapped

EDN 370	Behaviorally Disordered Children and Youth
EDN 371	Programming and Interventions for Behaviorally Disordered Students
EDN 410	Seminar in Education
EDN 411	Practicum

2. Learning Disabilities

EDN 366	Learning Disabled Children and Adolescents
EDN 372	Programming and Interventions for Learning Disabled Students

EDN 410 Seminar in Education
EDN 411 Practicum

3. Mental Retardation

EDN 364 Mental Retardation in School and Society
EDN 373 Programming and Interventions for Mentally Handicapped Students
EDN 410 Seminar in Education
EDN 411 Practicum

Academic Concentration

An academic concentration of thirty semester hours is required. A maximum of six semester hours of basic studies may be included in the academic concentration. Specific course requirements of the various concentrations may be obtained from the academic advisors within the School of Education. Academic concentrations may be selected from the following disciplines: anthropology, art, biology, chemistry, drama, English, French, geography, geology, history, marine biology, mathematics, music, philosophy and religion, political science, psychology, sociology, and Spanish.

A grade of "C" or better is required in all courses in the professional core and special education concentration. Students may repeat courses in which they earned a grade lower than "C" only with the permission of the dean of the School of Education.

Teacher Certification Program in Secondary and Special Subjects

Programs leading to teacher certification are offered in the secondary (9-12) fields of biology, chemistry, geology, English, history, mathematics, and physics, and in the special subject (K-12) fields of health, physical education, French, and Spanish. Students who concentrate in history, political science or sociology may fulfill subject matter requirements for social studies certification by completing a minimum of 21-23 semester hours in three social studies areas other than the discipline of major concentration. HST 101, 102, 201 and 202 and PLS 101 must be completed.

Students who concentrate in biology, chemistry, earth science or physics may fulfill requirements for natural science certification by completing 21-23 semester hours in three science areas other than the discipline of major concentration. A minimum of two courses from each discipline is required. Physics 260 is required. Students wishing to prepare themselves as secondary or special subject teachers are required to fulfill degree requirements in an appropriate academic discipline and to complete the following sequence of professional courses:

Pre-Professional Studies

The following courses should be completed before admission to the Teacher Education Program, usually in the sophomore year:

EDN 200 Teacher, School and Society
EDN 203 School Learning
PSY 223 Lifespan Human Development

Professional Studies

Students seeking secondary and special subject certification must complete the "core block" composed of the following courses: (see section below for description of requirements for health and physical education requirements)

EDN 301 Instructional Design
EDN 302 Introduction to Educational Computing
EDN 303 Instructional Technology
EDN 304 Classroom Evaluation and Research
EDN 356 Reading in the Secondary School

And one of the following:

EDN 403 Teaching Practices and Techniques in Secondary English, (9-12)
EDN 404 Teaching Practices and Techniques in Secondary Math, (9-12)
EDN 405 Teaching Practices and Techniques in Secondary Social Studies, (9-12)
EDN 406 Teaching Practices and Techniques in Secondary Science, (9-12)
EDN 407 Teaching Practices and Techniques in Foreign Languages (Spanish and French), (K-12)

The Professional Semester
EDN 408 Instructional Methods
EDN 409 Practicum

Professional Studies - Health and Physical Education

Students pursuing teacher certification in health and physical education will complete the following requirements in addition to those of the specialty area.

Pre-Professional Studies
EDN 200 Teacher, School and Society
EDN 203 School Learning
PSY 223 Lifespan Human Development

Professional Studies
EDN 302 Introduction to Educational Computing
EDN 303 Instructional Technology
EDN 356 Reading in the Secondary School

The Professional Semester
EDN 409 Practicum

Academic Concentration

An academic concentration of thirty semester hours is required. A maximum of six semester hours of basic studies may be included in the academic concentration. Specific course requirements of the various concentrations may be obtained from the academic advisors within the School of Education. Academic concentrations may be selected from the following disciplines: anthropology, art, biology, chemistry, drama, English, French, geography, geology, history, marine biology, mathematics, music, philosophy and religion, political science, psychology, sociology, and Spanish.

Students must take all the professional courses listed above preceding the professional semester and earn a grade of "C" or better before the student teaching semester. Students seeking secondary or special subjects teacher certification must be formally admitted to the Teacher Education Program prior to enrolling in 300 level education courses. Standards for admission are:

(1) Completion of the university requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.

(2) Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.

(3) Completion of four semesters or two academic years of full-time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale.

(4) Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

Education Course Descriptions

EDN 105-106. Seminar in Education (1-1) Prerequisite: Permission of instructor. Required of all North Carolina Teaching Fellows during freshman year. Open to others if space is available. An examination of issues and forces related to public education and the profession of teaching in the United States. Topics include political, social, and instructional issues. Emphasis also upon the development of skills essential to academic success. Activities include lectures, discussions, field activities, and reading of selected educational literature. One hour each week.

EDN 200. Teacher, School and Society (3) Introduction to profession of teaching that acquaints prospective teachers with diverse roles of teachers. Focuses on teacher as decision-maker; careers in education; social, historical and philosophical foundations of education; governmental and organizational aspects of schools; and current and future trends in American education. Observation skills are developed through field experience. Three hours of small group instruction and a minimum of one hour of off-campus observation each week.

EDN 203. School Learning (2) Study of learning in schools. Concerned with processes of human learning, individual difference variables and social and contextual variables significant for school learning. Representative models of learning from behavioristic, cognitive and humanisitic perspectives will be presented with emphasis given to applications to instructional decision making. Important personality variables (traits), cognitive variables (learning styles) and aptitudes will be examined. Motivational and group process concepts and principles will also be studied.

EDN 205-206. Seminar in Education (1-1) Prerequisite: Permission of instructor. Required of all North Carolina Teaching Fellows during sophomore year. Open to others if space is available. An examination of the diverse roles of the professional employed within the organization of public schools in the State of North Carolina, including demands and expectations of teaching at various grade levels K-12. Topics include a review of the academic, social, personal, and interpersonal skills required of successful professionals. Current issues and future trends in the field are examined. Activities include required field experiences, lectures, discussions, and reading of selected educational literature.

EDN 260. Introduction to Exceptional Children (3) Survey of major categories of exceptionalities including giftedness, mental retardation, hearing impairments, visual impairments, learning disabilities, communication disorders, behavioral/emotional

handicaps, and physical handicaps. Includes study of definitions, characteristics, etiology, psycho-social implications, and educational intervention for each exceptionality.

EDN 301. Instructional Design (3) Prerequisites: EDN 200 and EDN 203 as either prerequisite or corequisite and admission to the School of Education. This course is designed to provide the conceptual tools and analytic skills necessary to plan and implement instructional programs. This course will focus on the fundamental components of instructional development for teachers. Topics of study include instructional theory, types of learning, instructional objectives, planning strategies, task analysis, organization for instruction, and design of educational systems.

EDN 302. Introduction to Educational Computing (1) Teaches skills in operation of microcomputers and related hardware, the types of educational applications and their standards, fundamentals of programming languages and operating systems, problem-solving in computer operations, network operations, and use of telecommunications hardware and software. Skill in using one high-level wordprocessing program must be demonstrated. Two class hours each week plus a minimum of two hours of computer lab work will be required.

EDN 303. Instructional Technology (1) This course will emphasis design, selection, production, and evaluation of materials and their effective integration into an instructional unit or module. Basic skills will include graphics (manual and computer), display, photography, projection, reprographics, overhead transparencies, audio and video techniques.

EDN 304. Classroom Evaluation and Research (3) Prerequisite: EDN 301. An introduction and development of basic skills in evaluation and research. Evaluation topics will include selection and evaluation of instructional resources, design of feedback systems, measurement, and data organization and interpretation. Research topics will include methodology and utilization of research in the classroom.

EDN 310. School-Community Relations (3) Methods of improving school-community relations.

EDN 311. Student Leadership in Higher Education (1) Develops an understanding of leadership theories and skills and their utilization in practical settings. Topics include: (a) realizing the impact of student leadership, (b) understanding leadership theories, (c) developing a leadership style, (d) improving leadership skills, (e) use of the situational leadership model, and (f) working with a variety of personality types.

EDN 318. Middle School Programs and Practices (3) Overview of the conceptual and historic development of programs for students in grades six through nine. Comparison of varied curricular, instructional, and organizational aspects of the middle school movement. Major emphasis on exploring the educational implications of the developmental characteristics of early adolescent learners. Varied approaches to teaming, classroom management and mainstreaming will be investigated. Work will include observations in a variety of settings.

EDN 319. Individualizing Instruction (3) Prerequisite: EDN 301. This course will focus on strategies for meeting needs of individuals in the regular classroom. Students will study alternative methods for dealing with pupil differences that have an impact on learning. Characteristics of children with academic, intellectual, social-emotional, physical, cultural and language differences will be examined.

EDN 322. The Teaching of Mathematics, (K-6) (3) Prerequisites: EDN 301 and six semester hours of appropriate mathematics. Focus on the curriculum, materials, and methods appropriate for the teaching of mathematics for the kindergarten through sixth grade level. A field-based activity is required.

EDN 323. Teaching Mathematics in the Middle Grades, (6-9) (3) Prerequisites: EDN 301 and six hours of mathematics. Focus on the curriculum, materials and methods appropriate for the teaching of mathematics at middle grade levels. A field-based activity is required.

EDN 324. Diagnostic Teaching of Mathematics, (6-9) (3) Prerequisite: EDN 323. Understanding of psychological and environmental factors that affect learning of school mathematics. Focus on methods and materials appropriate to diagnosis and remediation of mathematics difficulties common at the six through nine level. Awareness of strategies effective for enhancing self-confidence in mathematics learning. A field-based activity is required.

EDN 334. Social Studies Curriculum and Instruction, (K-6) (3) Prerequisites: EDN 301 and six hours of social studies content. An overview of the goals of social studies education and how this affects various patterns of organizing curricular content. The implications of learner developmental characteristics for selecting approaches to instruction from history as well as the social and behavioral sciences will be explored. Emphasis on selection and preparation of appropriate materials including the strategies of inquiry, critical thinking, mapping and graphing, simulation, and problem solution. A field-based activity is required.

EDN 335. Social Studies Education in the Middle Grades (3) Prerequisite: EDN 301 and six hours of social studies content. Examines the specific ways in which social studies curriculum can be organized to meet the learning needs of middle grades students. Emphasis on selection and preparation of appropriate materials, identification of instructional procedures, data-based decision making and the relevance of social inquiry to the real world. Work will include a field experience and preparation of an in-depth unit of study suitable for use at this level.

EDN 336. The Teaching of Science and Health, (K-6) (3) Prerequisites: EDN 301 and two science courses. Methods of teaching the biological, earth and physical sciences and health. Applications of the sciences to classroom experimentation and investigation. Examination of contemporary curricula used at the elementary school level. Field experiences required.

EDN 337. Inquiry—The Method of Science (3) Prerequisite: A course in science methods or the completion of 15 hours toward a concentration or major in science or permission of instructor. Assumes initial level competency in curriculum and methods

of science. Focuses on conceptualization of and rationale for using inquiry method of teaching science. Provides opportunities to acquire and practice skills needed to utilize method and to guide scientific investigation at K-12 levels.

EDN 338. The Teaching of Science, (6-9) (3) Prerequisite: Completion of natural science basic studies and EDN 301. Survey of curriculum and methods for teaching science in grades 6-9. Focus on processes of scientific inquiry, on topics that integrate learnings across science disciplines, and on the social implications of science and technology. Field experience required.

EDN 340. Reading Foundations, (K-6) (3) Prerequisite: EDN 301. Emphasis on linguistics and psychological bases of the reading process, stages in the development of reading ability, and sequences of skill acquisition. Students will study models of reading instruction for language and literacy learning, the role of the classroom teacher of reading, and forces influencing that role. Extensive field experiences required.

EDN 344. Literature in the Elementary School, (K-6) (3) Prerequisite: EDN 340. The selection and evaluation of literature for elementary school children, including books and other media. Includes exploration of multi-cultural themes and traditions through literature, and strategies for integrating literature, music, and movement into the elementary curriculum.

EDN 348. The Teaching of Communication Arts, (K-6) (3) Prerequisite: EDN 301 and 340. Study of various approaches to school language instruction. Examination of strategies and methods for promoting growth in language learning in elementary classrooms with emphasis on use of drama and theater activities to enhance learning. Includes extensive opportunities to assess, teach, and evaluate all areas of children's language and reading development in public school classrooms.

EDN 352. Developing Reading Competence in the Middle Grades, (6-9) (3) Prerequisite: EDN 301. Develops understanding of reading processes in the broad context of communication. Presents strategies for fostering and evaluating interest, fluency, and skill in reading, both in developmental reading classes and in content subjects. Topics include organizational and instructional strategies for the development of reading ability, techniques for motivating and guiding readers, and strategies for study and comprehension which support learning in all areas of the curriculum.

EDN 355. Language Arts Methods for the Middle Grades, (6-9) (3) Prerequisites: EDN 352. Presents curriculum and methods for developing linquistic and communicative competence in language arts classes in the middle school. Develops understanding of communication processes (listening, speaking, writing, etc.), dialects, and language systems as influences in teacher decision-making. Focus on strategies and plan for facilitating and evaluating student oral and written language performance. Field experience required.

EDN 356. Reading in the Secondary School (3) Prerequisite: EDN 301. Required course in the teaching of reading for secondary majors. Basic instructional reading strategies are developed, with emphasis on introducing assignments, improving study skills, and fostering critical thinking. Students identify and learn to teach reading skills specific to

varying content areas. Adjusting instruction to students' reading capabilities is stressed.

EDN 364. Mental Retardation in School and Society (3) Examination of the field of mental retardation from an developmental perspective. Study of etiology, definitions, characteristics, and historical and current approaches to treatment of persons with mental retardation in a variety of settings and across the life span. Includes study of all levels of mental retardation. Field experiences required.

EDN 366. Learning Disabled Children and Adolescents (3) Examination of the field of learning disabilities. Emphasis on the concept of learning disabilities, etiology, diagnosis, characteristics, teaching strategies, theory, historical influences, and current trends.

EDN 367. Behavior Management Techniques (3) Prerequisite: EDN 301 or consent of instructor. Designed to develop an understanding of the principles of behavior and their application in planning and implementing various behavior management strategies. Focus will be on observation and measurement of social behavior management techniques. Field experiences required.

EDN 368. Diagnostic Techniques in Special Education (3) Prerequisites: EDN 301 and one of the following: EDN 260, 364, 366 or 370. Examination of concepts and fundamentals of educational assessment. Includes examination of formal and informal techniques appropriate for exceptional students. Includes assessment of intellectual functioning, academic problems, spoken language, learning skills, social-emotional development, early childhood skills, and vocational skills. Field experiences required.

EDN 369. Prescription Development in Special Education (3) Prerequisites: EDN 301 and one of the following: EDN 260, 364, 366 or 370. Development of skill in planning educational programs for exceptional children. Includes writing instructional objectives, selecting appropriate materials and techniques, writing lesson plans, and formulating individualized educational programs. Field experiences required.

EDN 370. Behaviorally Disordered Children and Youth (3) Prerequisites: EDN 301 or consent of the instructor. Designed to examine the wide and complex variety of learners labeled as "behaviorally disordered" or "emotionally disturbed." Topics related to historical, theoretical, etiological, developmental, and symptomological issues plus diagnosis, identification and service delivery models will be introduced. Program and parent involvement models and current trends and issues will be reviewed. Field experiences required.

EDN 371. Programming and Interventions for Behaviorally Disordered Students (3) Prerequisites: EDN 367 and 370. Examination of problems, issues and practices in developing programs for and educating students with behavior disorders. Emphasis on academic and social needs, major interventions, family involvement, scheduling issues, applied behavior analysis, and systematic/directive teaching of new behaviors. Legal considerations, consultation strategies, and curriculum issues will be reviewed. Field experiences required.

EDN 372. Programming and Interventions for Learning Disabled Students (3) Prerequisite: EDN 366. Study of the educational implications of LD student characteristics. Emphasis will be on needs of LD individuals relevant for instruction; developmental, cognitive, medical, behavioral, and cognitive developmental approaches; programming and interventions for grades K-12; remediation and compensation strategies.

EDN 373. Programming and Interventions for Mentally Handicapped Students (3) Study of intervention strategies for persons with mental retardation. Emphasis will be on programming for persons with mental retardation in community settings including day treatment programs as well as school settings. Field experiences required.

EDN 374. Special Education Curriculum and Instruction (3) To be taken the semester prior to EDN 410 and EDN 411. Study of the curriculum areas and instructional techniques utilized in educational settings for learning disabled, mentally retarded, and behaviorally/emotionally handicapped students. Emphasis on curriculum development processes, design and lesson and unit plans, selections of materials, identification of instructional procedures, and data-based decision making. Field experiences required.

EDN 403. Teaching Practices and Techniques in Secondary English, (9-12) (3) Prerequisite: EDN 301. Development of techniques for teaching in secondary English. Emphasis on curriculum development, classroom management, inquiry, critical thinking, and selection of appropriate instructional materials. Successful planning and teaching practices with adaptations for special needs students.

EDN 404. Teaching Practices and Techniques in Secondary Mathematics, (9-12) (3) Prerequisite: EDN 301. Development of techniques for teaching in secondary mathematics. Emphasis on curriculum development, classroom management, inquiry, critical thinking, and selection of appropriate instructional materials. Successful planning and teaching practices with adaptations for special needs students.

EDN 405. Teaching Practices and Techniques in Secondary Social Studies, (9-12) (3) Prerequisite: EDN 301. Development of techniques for teaching in secondary social studies. Emphasis on curriculum development, classroom management, inquiry, critical thinking, and selection of appropriate instructional materials. Successful planning and teaching practices with adaptations for special needs students.

EDN 406. Teaching Practices and Techniques in Secondary Science, (9-12) (3) Prerequisite: EDN 301. Development of techniques for teaching in secondary science. Emphasis on curriculum development, classroom management, inquiry, critical thinking, and selection of appropriate instructional materials. Successful planning and teaching practices with adaptations for special needs students.

EDN 407. Teaching Practices and Techniques in Foreign Languages, (K-12) (Spanish and French) (3) Prerequisite: EDN 301. Development of techniques for teaching in Spanish and French. Emphasis on curriculum development, classroom management, inquiry, critical thinking, and selection of appropriate instructional materials. Successful planning and teaching practices with adaptations for special needs students.

EDN 408. Instructional Methods (3) Corequisite: EDN 409. Prerequisites: All pre-professional core and specialty courses and acceptance into the School of Education. Intensive examination of instructional methods in the student's area of specialization. Activities will be related to the student's practicum assignment, and emphasis will be placed on the development of instructional plans to be implemented in the practicum setting. Areas of specialization: English, French, mathematics, science, social studies, Spanish.

EDN 409. Practicum (12) Corequisite: EDN 408. Prerequisites: As specified for EDN 408. Students will be assigned full-time to practicum sites within their areas of specializations. During the course, students will engage in a variety of supervised instructional activities, assuming increasingly wider responsibility for class instruction. Practica are offered in the areas of specialization listed above under EDN 408.

EDN 410. Seminar in Education (K-6, 6-9, special education) (3) Corequisite: EDN 411. Prerequisites: All courses in the professional core and specialty areas appropriate for the concentration for K-6, 6-9, and special education majors. Designed as a culmination of professional study and an initiation into student teaching and the teaching profession. Provides opportunities to extend and apply understandings of the roles of the teacher as a decision-maker, particularly in the areas of planning, instruction, management, and evaluation.

EDN 411. Practicum, (K-6, 6-9, special education) (12) Corequisite: EDN 410. Prerequisites: As specified for EDN 410. A full-time practicum experience within the area of specialization. Students will engage in a variety of supervised instructional activities, assuming an increasing amount of responsibility for all phases of classroom instruction. Practica are offered in the areas of elementary education (K-6), middle grades education (6-9), and special education.

EDN 412. Extended Practicum (3-6) Prerequisite: Appropriate curriculum and instruction courses and permission of the chairperson of the Department of Curricular Studies. A part-time practicum experience within the appropriate area of certification. Students will engage in supervised instructional activities that extend their understandings and teaching performance to an additional area of preparation. Areas of specialization include elementary, middle grades, special education, and secondary education.

EDN 415. Education Media Design and Production (3) This course will provide students with an understanding of the design principles underlying the production of instructional materials and with the necessary production techniques. Emphasis will be placed upon the production of materials and their effective integration into an instructional unit. Students will design, produce, and evaluate a number of projects using techniques common to media programs in public schools and the authors who have made contributions to this field.

EDN 416. Instructional Applications of Computers (3) Prerequisites: EDN 301 and 302. Designed to develop skills in using computers as tools in instruction and to make judgments about instructional materials designed for use on computers. Topics include: (1) introduction to computing systems, (b) introduction to microcomputer programming languages, (c) authoring languages, (d) judging instructional "software", (e)

using computers to manage classroom records, (f) using computers in instruction, and (g) teleprocessing and automated data bases. Activities will include group lectures, demonstrations, and discussions, projects in software designed for classroom management and instruction. The major focus is on microcomputer application.

EDN 430. Preschool Curriculum (3) Prerequisite: EDN 301. Provides students the understandings, skills, and abilities necessary to implement an effective preschool program. Emphasis placed on knowledge of the curriculum content and the effective combinations and correlations of these contents for a preschool program. Activities include lectures, discussions, demonstration, individual, and group projects.

EDN 431. Teaching in the Primary Grades (3) Designed to develop a broad overall view of teaching in the primary grades. The course includes examination of the history, current "state of the art" and possible future of primary education. Focus is on the application of knowledge of child development and learning theories in organizing and implementing the primary school curriculum in an integrated and interdisciplinary fashion. Study of classroom organization and management for effective teaching in the primary grades will be undertaken.

EDN 432. Interdisciplinary Curriculum and Instruction (3) Examines principles of interdisciplinary curriculum and instruction and explores its appropriateness for middle grades and intermediate students. Alternative approaches to designing interdisciplinary curriculum and instruction such as thematic units and exploratory and interest-based study will be examined. Emphasizes the possible linkages among the disciplines, focusing on thinking and communication skills, concepts and problem solving learning, as well as values clarification/resolution.

SCHOOL OF NURSING

Marlene M. Rosenkoetter, *Dean*

Bachelor of Science Degree

Dr. Faller, Dr. Gray, Ms. Horne, Ms. Jackson, Ms. Lowe, Ms. May, Ms. Montambo, Dr. Reynolds, Ms. Steele, Ms.Stone.

The School of Nursing at The University of North Carolina at Wilmington offers a program leading to the Bachelor of Science degree with a concentration in professional nursing. The purpose of this baccalaureate program is to prepare a generalist who possesses the knowledge, skills, and attitudes with which to practice family-centered professional nursing in a variety of current and emerging health care delivery systems. In addition, the program is designed to provide a foundation for graduate nursing education. Through interactions with clients—individual persons, families and communities—and other health care professionals, nursing graduates will contribute toward meeting the wide-ranging needs of the region, state, and the larger community.

Program Objectives

The graduate of The University of North Carolina at Wilmington baccalaureate program in nursing is able to:

(1) Practice family-centered professional nursing based upon a conceptual framework in a variety of settings.

(2) Interact with individuals, families, and communities to promote an environment conducive to health.

(3) Utilize the nursing process in the delivery of health care to individuals, families, and communities.

(4) Base professional practice upon a synthesis of knowledge from social, behavioral, and natural sciences, nursing theory and research.

(5) Demonstrate commitment and accountability to health care consumers and to professional standards.

(6) Function as a self-directed learner who assumes responsibility for continued personal and professional growth.

(7) Assume a leadership role in the provision and coordination of health care through collaborative relationships with other health care professionals.

(8) Influence present and emerging roles of nursing practice to meet the health care needs of a changing society.

(9) Stimulate change within clients and health care delivery systems to more effectively promote the health of the community.

Degree Requirements for Bachelor of Science Degree
Concentration in Nursing
SAMPLE SCHEDULE

FIRST YEAR

Fall Semester

			Hours
ENG	101	English Composition	3
PED	101	Found. of Physical Activity	2
PSY	105	General Psychology	3
MAT	111	Precalculus Mathematics	3
CHM	115	Fund. of General Chemistry	4
TOTAL			15

Spring Semester

			Hours
ENG	102	English Composition	3
SOC	105	Intro. to Sociology	3
CHM	215	Organic/Biologic Chemistry	4
		Humanities electives	6
TOTAL			16

SECOND YEAR

Fall Semester

			Hours
BIO	240	Human Anatomy & Physiology	4
PSY	323	Lifespan Human Development	3
		Fine Arts Elective	3
		Humanities Elective	3
		Free Elective	3
TOTAL			16

Spring Semester

			Hours
BIO	241	Human Anatomy & Physiology	4
BIO	246	Microbiology of Human Diseases	4
SOC	345	Sociology of the Family	3
+NSG	115	Intro. to Contemporary Nursing*	1
		Humanities or Fine Arts Electives**	3
TOTAL			15

Summer Session I

			Hours
NSG	200	Intro. to Nursing Assess/Int. I	2
NSG	200-51	Intro. to Nursing Assess/Int. Laboratory	1
TOTAL			3

Summer Session II

			Hours
NSG	250	Intro. to Nursing Assess/Int. II	2
NSG	250-51	Intro. to Nursing Assess/Int. II Laboratory	1
TOTAL			3

* Can be taken concurrently with NSG 200 (transfer students)
** 12 hours humanities and three hours fine arts.
\+ A minimum grade of "C" is required in each nursing course.

THIRD YEAR

Fall Semester

			Hours
NSG	300	Nursing Process I	5
NSG	300-51	Nursing Process I Laboratory	3
NSG	310	Interactions in Nursing Prac. I	3
NSG	315	Nature of Man & Health in Modern Society	3
		Free Elective (or senior year)	(3)
TOTAL			14-17

Spring Semester

			Hours
NSG	350	Nursing Process II	5
NSG	350-51	Nursing Process II Laboratory	3
NSG	360	Interactions in Nursing Prac. II	3
STT	210	Intro. to Statistics with Applications in Health Sciences	3
TOTAL			14

FOURTH YEAR

Fall Semester

			Hours
NSG	400	Nursing Process III	4
NSG	400-51	Nursing Process III Laboratory	3
NSG	410	Interactions in Nursing Practice III	3
NSG	415	Research in Nursing	3
TOTAL			13

Spring Semester

			Hours
NSG	450	Nursing Process IV	5
NSG	450-51	Nursing Process IV Laboratory	3
NSG	460	Interactions in Nursing Practice IV	3
NSG	490	Advanced Nursing Practicum	1
		Free Elective (or Junior year)	3
TOTAL			12-15

TOTAL HOURS: 57 hours - Concentration in Nursing (46%)
67 hours - Basic Studies and Collateral (54%)

Admission to the School of Nursing is dependent on university admission, recommendation of the Committee for Student Affairs of the School of Nursing, approval of the nursing faculty and meeting admission criteria, including the completion of required prerequisite courses.

Time Limits: Nursing courses must be completed within a consecutive six calendar year period of time.

Ten-Year Rule: Science courses which are more than ten years old will be evaluated by the School of Nursing for currency.

RN ACCESS Program for Registered Nurses

Prerequisite Courses Hours			Hours
ENG	101	English Composition	3
ENG	102	English Composition	3
MAT	111	Precalculus Mathematics	3
PED	101	Fundamentals of Physical Activity	2
CHM	115	Fundamentals of General Chemistry	4
CHM	215	Organic/Biologic Chemistry	4
BIO	240	Human Anatomy and Physiology	4
BIO	241	Human Anatomy and Physiology	4
BIO	246	Microbiology of Human Diseases	4
PSY	105	General Psychology	3
PSY	223	Lifespan Human Development	3
SOC	105	Introduction to Sociology	3
SOC	345	Sociology of the Family	3
STT	210	Intro. to Statistics with Application in the Health Sciences*	3
		Humanities Electives	12
		Fine Arts Electives	3
		Free Electives*	6
TOTAL PREREQUISITE CREDITS			67 (54%)

* STT 210 and one three-credit free elective may be taken concurrently with nursing courses.

Degree Requirements for Bachelor of Science Degree
Concentration in Nursing
RN ACCESS Program
SAMPLE SCHEDULE*

Summer Session I

			Hours
NSG	219	Interactions in Contemporary Nursing I	3
TOTAL			3

Summer Session II

			Hours
NSG	250	Introduction to Nursing Assessment and Interven. II	2
NSG	250-51	Intro. to Nursing Assessment and Interven. II Lab	1
TOTAL			3

Fall Semester

			Hours
NSG	379	Interactions in Contemporary Nursing II	1
NSG	389	Nursing Process in Contemporary Nursing	3
NSG	389-51	Nursing Process in Contemporary Nursing Lab	3
NSG	410	Interactions in Nursing Practice III	3
NSG	415	Research in Nursing	3
TOTAL			13

Spring Semester

			Hours
NSG	450	Nursing Process IV	5
NSG	450-51	Nursing Process IV Lab	3
NSG	460	Interactions in Nursing Practice IV	3
NSG	490	Advanced Nursing Practicum	1
TOTAL			12

Credit by Placement	26
Nursing Concentration Credits	31
Total Nursing Hours	57
	(46%)

*NOTES

1. Courses numbered above 400 are taken with students in the generic baccalaureate program.

2. Registered nurses admitted to the RN ACCESS Program of the UNCW School of Nursing are required to verify their previous nursing education and experience by achieving a satisfactory score on the National League for Nursing Mobility Profile II tests and a clinical verification examination. Schedules for test dates are available in the office of the dean.

A fee is charged for these tests.

A total of 26 semester hours of placement credit will be awarded to registered nurses upon satisfactory completion of all examinations.

3. A part-time sequence is available for the RN ACCESS Program.

BACHELOR OF SCIENCE DEGREE

Nursing Course Descriptions

NSG 115. Introduction to Contemporary Nursing (1) Prerequisite: Sophomore status. Open to non-nursing majors with consent of instructor. An overview of the historical development of nursing with discussion of significant persons, issues and events. Nursing education alternatives, various roles of professional nurses in contemporary practice, basic legal/ethical issues, and criteria which differentiate professional practice are described. Introduces the conceptual framework of the UNCW baccalaureate nursing program. One hour each week.

NSG 200. Introduction to Nursing Assessment and Intervention I (2) Prerequisite: Admission to the School of Nursing. Corequisite: NUR 200-51. An introduction to concepts and techniques of professional nursing practice. Includes concepts of nursing process, role, health, illness, communication, self-awareness, growth and development, responsibility and accountability, change, needs, client teaching, leadership, prevention, and nursing research. Selected basic nursing techniques associated with these concepts are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer session).

NSG 200-51. Introduction to Nursing Assessment and Intervention I Laboratory (1) Prerequisite: Admission to the School of Nursing. Corequisite: NUR 200. Provides the opportunity for clinical application of the introductory concepts and techniques of professional nursing practices which are taught in NUR 200. Students apply these concepts with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer session).

NSG 250. Introduction to Nursing Assessment and Interventions II(2) Prerequisite: NUR 200, 200-51 or NUR 219. Corequisite: NUR250-51. An introduction to the concepts and techniques of health assessment including interviewing and history-taking, developmental assessment, psychosocial assessment, and physical assessment. Nursing process provides the major framework for focusing on assessment of individual adults and identifying opportunities for primary prevention. Assessment techniques are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer session).

NSG 250-51. Introduction to Nursing Assessment and Interventions II Laboratory (1) Prerequisite: NUR 200, 200-51 or NUR 219.Corequisite: NUR 250. Provides the opportunity for clinical application of introductory concepts and techniques of health assessment which are taught in NUR 250. Assessments are performed with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer session).

NSG 300. Nursing Process I (5) Prerequisite: NUR 115, 250, 250-51. Corequisite: NUR 300-51. Focuses on utilization of the nursing process with families, incorporating communication patterns, family development and the professional nurse's role in primary prevention with families. Basic research finding are incorporated and additional nursing

techniques are acquired. Beginning concepts of secondary prevention are introduced. Five hours each week.

NSG 300-51. Nursing Process I Laboratory (3) Prerequisite: NUR115, 250, 250-51. Corequisite: NUR 300. Provides the opportunity for clinical application of the concepts and techniques which are taught in NUR 300. The nursing process is utilized with families in all phases of the life cycle, focusing on primary prevention. Selected secondary prevention related to screening in healthy populations is implemented. Twelve hours clinical laboratory each week.

NSG 310. Interactions in Nursing Practice I (3) Prerequisite: NUR250, 250-51. Prerequisite or Corequisite: NUR 300, 300-51. Emphasizes elements of the teaching-learning process and related principles of change, decision-making, communication and assertiveness. Selected literature is reviewed, as a teaching project is implemented with a designated family.

NSG 315. Nature of Man and Health in Modern Society (3) Prerequisite: NUR 115, 250, 250-51. Establishes a foundation for the professional nursing role through an examination of selected historical events, legal and ethical frameworks for practice, standards for nursing, key issues in health care, current issues in nursing, nursing theories, and models of nursing care delivery.

NSG 350. Nursing Process II (5) Prerequisite: NUR 300, 300-51, 310, 315. Corequisite: NUR 350-51. Focuses on utilization of the nursing process with families who have a member in an acute care setting. A foundation is developed for secondary prevention, including pathophysiology, psychopathology, relevant theories and research, and nursing roles and functions. Additional nursing techniques needed for secondary prevention are required.

NSG 350-51. Nursing Process II Laboratory (3) Prerequisite: NUR300, 300-51, 310, 315. Corequisite: NUR 350. Provides the opportunity for clinical application of the concepts and techniques taught in NUR 350. The nursing process is utilized with families who have a member in an acute care setting, focusing on secondary prevention. Twelve hours clinical laboratory each week.

NSG 360. Interactions in Nursing Practice II (3) Prerequisite:NUR 310, 315. Corequisite: NUR 350, 350-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership, and conflict resolution. A self-inventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed. Teaching-learning principles are applied with a group of clients.

NSG 400. Nursing Process III (4) Prerequisite: NUR 350, 350-51, 360. Corequisite: NUR 400-51. Focuses on utilization of the nursing process with families who have a member in a critical care setting and development of a framework for more advanced secondary prevention. Beginning concepts of tertiary prevention are introduced and additional nursing techniques pertaining to advanced secondary prevention are acquired.

NSG 400-51. Nursing Process III Laboratory (3) Prerequisite: NUR350, 350-51, 360. Corequisite: NUR 400. Provides the opportunity for clinical application of the advanced

secondary prevention concepts and techniques which are taught in NUR 400. The nursing process is utilized with families who have a member experiencing a life-threatening illness or crisis. Twelve hours clinical laboratory each week.

SG 410. Interactions In Nursing Practice III (3) Prerequisite:NUR 350, 350-51, 360. Corequisite: NUR 400, 400-51. Prerequisite or Corequisite: NUR 379, 389, 389-51. Emphasizes elements of community assessment and related principles of epidemiology, health planning, social and political change, environmental management, and levels of prevention. Community resources and data sources are incorporated into the implementation of an assessment for a selected community.

SG 415. Research In Nursing (3) Prerequisite: STT 210, NUR 350, 350-51, 360. Prerequisite or Corequisite NUR 379, 389, 389-51. Examines research process as applied to nursing. Research terminology, methodology, and applicability of research findings for clinical practice are emphasized. Computer uses and ethical decision-making are incorporated. Principles of research are applied in developing a preliminary proposal for a nursing research project of limited scope.

SG 450. Nursing Process IV (5) Prerequisite: NUR 400, 400-51, 410 or NUR 389, 389-51, 410. Corequisite: NUR 450-51, 460. Focuses on the utilization of the nursing process with individuals, families, and groups who have and groups who have complex health needs. A conceptual framework for clinical practice based on related beliefs, theories, and research is developed, and provides the foundation for the role of the nurse in tertiary prevention.

SG 450-51. Nursing Process IV Laboratory (3) Prerequisite: NUR400, 400-51, 410 or NUR 389, 389-51, 410. Corequisite: NUR 450, 460. Provides the opportunity for the clinical application of concepts and techniques taught in NUR 450 and NUR 460. The nursing process is utilized with individuals, families, and groups who have complex health needs, and the students assumes responsibility for coordinating or directing the care of a group of clients. Twelve hours clinical laboratory each week.

SG 460. Interaction In Nursing Practice IV (3) Prerequisite: NUR400, 400-51, 410 or NUR 389, 389-51, 410. Corequisite: NUR 450, 450-51. A seminar focusing on nursing leadership and management for the professional nurse. Included are: related concepts and theories of organization, change, power and authority, and role development; models of nursing care delivery; legal ramifications of delegation; models of quality assurance; computer applications in nursing management; and transitional issues for the graduate.

SG 490. Advanced Nursing Practicum (1) Prerequisite: NUR 400, 400-51, 410, 415 or NUR 389, 389-51, 410, 415. Provides the opportunity for clinical application of the nursing process to a selected area of nursing practice as the student integrates the concepts of research, prevention, and change into a clinical project. Emphasis on further development of nursing skills, knowledge and leadership, and establishing collegial relationships. Four hours clinical practicum each week.

NSG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing; consent of instructor; NUR 300, 300-51, or NUR 389, 389-51. A maximum of 6 hours will apply toward graduation.

NSG 495. Selected Topics in Nursing (1-3) Prerequisite: Enrolled in School of Nursing and consent of instructor. Selected topics in nursing. A maximum of 3 hours will apply toward graduation.

NSG 499. Honors Work in Nursing (2-3) Prerequisite: Eligibility for honors program; NUR 300, 300-51 or NUR 389, 389-51.
Individual study for honors students.

Courses for Registered Nurses Only

NSG 219. Interactions in Contemporary Nursing I (3) Prerequisite: Registered Nurse. An overview of fundamental concepts for professional nursing practice. Emphasizes nursing process, health, illness, communication, responsibility and accountability, leadership, prevention, change, decision-making and research in professional nursing practice. Introduces nursing theories and the conceptual framework of the UNCW baccalaureate Nursing Program. A teaching project is implemented with an individual client. Ten lecture hours per week (summer session).

NSG 379. Interactions in Contemporary Nursing II (1) Prerequisites: NUR 219, 250 and 250-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership and conflict resolution. A self-inventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed.

NSG 389. Nursing Process in Contemporary Nursing (3) Prerequisites: NUR 219, 250, and 250-51. Corequisite: NUR 389-51. Focuses on utilization of the nursing process with families in all phases of the life cycle. Incorporates communication patterns, family development and prevention. A clinical framework is developed from relevant theories and research. Nursing roles of career provider, coordinator, client teacher and advocate are explored. Responsibility and accountability for interactions with families are emphasized as the need for change within family and health care delivery systems is identified.

NSG 389-51. Nursing Process in Contemporary Nursing Laboratory (3) Prerequisite: NUR 219, 250, 250-51. Corequisite: NUR 389. Provides the opportunity for clinical application of concepts and techniques taught in NUR 389. The nursing process is utilized with families during all phases of the life cycle in community and acute care setting. Twelve hours clinical laboratory each week.

PROFESSIONAL PROGRAMS

MEDICAL TECHNOLOGY

Advisor: Mrs. Kendrick

UNCW students interested in medical technology have two programs of study from which to choose.

1. A five-year program which includes earning a bachelor's degree with a major in either biology or chemistry and completion of an additional year of training at an accredited hospital.

*2. A four-year program leading to a Bachelor of Science degree with a concentration in medical technology. The first six semesters (90 semester hours) of this program are completed on campus with the final year (12 months) spent in training at an affiliated hospital. The affiliated hospitals are:

   Bowman Gray School of Medicine/North Carolina Baptist Hospital, Winston-Salem, N.C.
   Carolinas Medical Center, Charlotte, N.C.
   Forsyth Memorial Hospital, Winston-Salem, N.C.
   Moses Cone Memorial Hospital, Greensboro, N.C.
   New Hanover Regional Medical Center, Wilmington, N.C.
   Presbyterian Hospital, Charlotte, N.C.

   Upon successful completion of this four-year program, the student will receive the Bachelor of Science degree with a concentration in medical technology.

Completion of the first years of study at UNCW does not assure the student admission to the year of clinical training at a hospital. There is competition for the limited space available; therefore, application to the preferred hospital should be made early in the fall of the last year at UNCW. Such application is the responsibility of the student. Guidance by the faculty advisor should be sought, since entrance requirements may differ at various hospitals.

As a part of the admission process, some hospital facilities require that applicants take the Allied Health Professions Test.This test is given at specified institutions each year. See the advisor about time and place.

***Students majoring in medical technology must file and pay for graduation during the first semester of the junior year. This application is filed in the Office of the Registrar.**

The medical technology curriculum prescribed during the first three years (90 semester hours) at UNCW must include:

1. Basic Studies requirements: 45 semester hours

2. Requirements for a concentration in Medical Technology for the BSMT degree:

BIO 108	Introduction to Medical Technology (1)
BIO 110-111	Principles of Biology (4-4)
BIO 206	and BIO 345 Animal Biology and Animal Physiology (4,4) or BIO 206 and BIO 347 Animal Biology and Cell Physiology (4-4) or BIO 240-241 Human Anatomy and Physiology (4,4)
BIO 341	Clinical Calculations (1)
BIO 371	Human Fungal Diseases (1) or BIO 477 Mycology (4)
BIO 425	Microbiology (4)
BIO 441	Introduction to Immunology (1)
CHM 101-102	General Chemistry (4-4)
CHM 211-212	Organic Chemistry (4-4)
MAT 111	Precalculus Mathematics (3) or MAT 115 Elementary Mathematical Analysis

Recommended elective courses:

CHM 225	Chemical Applications of Microcomputers (1)
*CHM 235	Quantitative Analysis (4)
BIO 335	Genetics (4) or BIO 235 Genetics in Human Affairs (3)
BIO 465	Biochemistry (3)
BIO 495	Seminar (in related areas) (1)
PHY 101-102	Elementary College Physics (4-4)
STT 215	Introduction to Statistics (3)
CSC 105	Survey of Computer Applications (2)

*Very highly recommended

Choice of elective courses should be made jointly by the student and the medical technology advisor.

During the clinical training year at the affiliated hospital, the final 34 semester hours are earned from the courses listed below. Credit for these courses may not be counted toward any other degree at The University of North Carolina at Wilmington.

Medical Technology Course Descriptions

MT 401. Immunology-Serology (2) A study of the innate and adaptive immune response mechanisms in the body and the laboratory methods used to evaluate these responses. Special emphasis on serological techniques.

MT 405. Hematology (8) A study of the formation, morphology, and functions of human blood cells, primary and secondary hematological diseases and clinical laboratory tests for diagnosing them; hemostasis and the evaluation of clotting disorders.

MT 407. Immunohematology (4) A study of the clinical transfusion service, including collection and handling of donor blood and its components, blood typing, compatibility testing between donor and recipient blood and between maternal and fetal blood, and identification of factors responsible for incompatibilities.

MT 412. Clinical Microbiology (8) A study of the medically important bacteria, fungi, viruses, parasites, and associated infectious diseases; special emphasis on the study of appropriate clinical specimens for isolation and identification of microorganisms involved in the infectious process and on testing these isolates for antibiotic susceptibility.

MT 414. Clinical Microscopy (2) Chemical and microscopic study of urine and other body fluids in health and disease, microscopic analysis of urinary sediment, and study of renal physiology.

MT 420. Clinical Chemistry (8-10) Study of the biochemical analyses of blood and other body fluids to evaluate the enzymes,hormones, electrolytes, drugs, and other important chemicals in the body; use and maintenance of sophisticated instrumentation and quality control.

MT 490. Special Topics in the Clinical Laboratory Sciences (1-2)

NURSING

Advisors: Ms. Lowe, Ms. Stone

The university provides a four-year program leading to a Bachelor of Science degree with a concentration in nursing. Upon successful completion of the program and the recommendation of the faculty, graduates are eligible to write the licensure examination for registered nurses.

For further information on the Nursing Program, refer to the section of this catalogue which describes School of Nursing programs, requirements, and course offerings.

THE TEACHER EDUCATION PROGRAM

The Teacher Education Program at The University of North Carolina at Wilmington stresses a broad education base, a sound subject matter preparation, and an appropriate emphasis on professional education to meet state certification requirements and to give the prospective teacher confidence.

All students who expect to follow the Teacher Education Program must be formally admitted into the program according to policy established by the University Council on Teacher Education. To be eligible for admission, students must have completed four semesters or two academic years of full-time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale, have completed the university basic skills requirements in English and mathematics and a natural science laboratory course with a grade of a least "C" in each course, have completed EDN 200, Teacher, School and Society, with a grade of "C" or better, and have passing scores on the

teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

The university provides degree certification programs for elementary, middle grades, secondary, and special education teachers. For further information, refer to the section of this catalogue which describes School of Education programs, requirements, and course offerings.

PRE-PROFESSIONAL PROGRAMS

PRE-AGRICULTURE AND PRE-FORESTRY

Advisor: Dr. Sieren

Pre-professional programs in forestry and agriculture are arranged which enable students to transfer to schools offering professional training in the two fields. The programs are designed to meet the requirements and recommendations of the professional schools and students should plan their programs in consultation with the pre-agriculture or pre-forestry advisor.

ALLIED HEALTH

Advisor: Rebecca Jones

HEALTH RELATED CAREERS (freshman advising)

Advisors: In General College Advising Center

The General College Advising Center provides a common curriculum during the freshman year for all students (except nursing) interested in health-related careers, e.g., medicine, pharmacy, etc.

First Semester

ENG	101	Freshman Composition
MAT	111	Pre-Calculus Math (or higher, e.g., MAT 115 or 161)
CHM	101	General Chemistry
BIO	110	Principles of Biology or other biology core course, e.g., BIO 205 or 206
Basic Studies course		

Second Semester

ENG	102	Freshman Composition
CHM	102	General Chemistry
BIO	111	Principles of Biology or other Biology core course
		Basic Studies courses

PRE-ENGINEERING

Advisors: In General College Advising Center

The university offers courses in pre-engineering for students who may transfer to a specialized engineering school after one or two years.

General Requirements: MAT 161 (students with insufficient background may begin with MAT 115 or even MAT 111), 162, 261, 361; CHM 101 and/or 102 (see advisor); PASCAL or FORTRAN computer science course (see advisor); EGN 111; PHY 201, 202; ENG 101, 102;

ECN 221; plus humanities and social and behavioral sciences courses designed to meet graduation requirements at the university to which one is intending to transfer (see advisor).

PED 101 (PED 102 is not required for graduation; however, four semesters of physical education are required to graduate from N.C. State University).

Specific Requirements:

Chemical Engineering: CHM 311, 312

Civil Engineering: GLY 101; EGN 211, 212; Civil Engineering students should also consider GGY 320

Electrical Engineering: see advisor.

PRE-LAW

Advisor: Dr. James Dixon

Students who plan to prepare for law school may select a major in any discipline that fulfills the requirements for a baccalaureate degree at UNCW. In developing a pre-law program, the student should be aware of the recommendation of the Association of American Law Schools, which describes the basic skills and insights it believes fundamental to the later attainment of legal competence. These are (a) comprehension and expression in words; (b) critical understanding of human institutions and values with which the law deals; and (c) creative power in thinking. In order to develop these capacities; the association recommends a pre-legal education of "the broadest scope." To accomplish these goals The University of North Carolina at Wilmington offers a wide range of pre-law courses. Although political science and business are frequently selected by pre-law students as their major, economics, English, history, sociology and others are sometimes selected. Regardless of the area of concentration, the pre-law student should be zealous in the selection of electives that will facilitate critical understanding of economic, political and social institutions. Since a lawyer must be able to communicate effectively, the pre-law student is well-advised to lay special emphasis on communicative skills. Also a knowledge of elementary accounting is highly recommended.

Finally, the pre-law student should remember that the quality of undergraduate instruction is more important than the subject matter area. The Association of American Law Schools recommends the selection of courses which require the greatest preparation and intellectual discipline. "The best trained applicant for law school," states the association, "is the student who has studied under teachers who have inspired, challenged, and pressed him."

All candidates for law school should apply in time to ensure that their completed file is available by January 1 of the year they plan to enter. This means that they should register for either the June or September administration of the Law School Admissions Test and for the Law School Data Assembly Service. The LSAT and the LSDAS are explained fully in the *Law School Admission Bulletin* which is available in the Department of Political Science. Additional information and advice may be secured from the pre-law advisor in the Department of Political Science.

PRE-DENTISTRY

Advisor: Dr. Sybil K. Burgess

Students wishing to become dentists should consult the pre-dentistry advisor early in their academic career. The requirements for admission to dental school are similar to the requirements for medical school, with the exception that a Dental Admissions Test (DAT) is taken during the spring of the junior year.

PRE-MEDICINE

Advisor: Dr. Ned H. Martin

Students wishing to pursue a career in medicine may elect to major in any discipline as long as certain basic courses in the sciences and humanities are incorporated into their curriculum. Most medical schools require students to have a minimum of two semesters of introductory (inorganic) chemistry with labs, two semesters of organic chemistry with labs, two semesters of biology (including zoology) with labs, two semesters of physics with labs, and two semesters of English composition and literature. Although there is not a pre-med major at UNCW, the departments of biological sciences, chemistry, and physics each have a B.A. degree specifically designed for pre-med students. Pre-med students should plan to take the Medical College Admission Test (MCAT) in the spring of their junior year. High academic achievement, involvement in extra-curricular activities, and dedication to a career in medicine are among the many requisites for successful application to medical school. The Health Science Club exists to help pre-med students, as well as others interested in careers in the health professions, learn more about their options. Pre-med students should have their official academic advisor in the department of their major, but should seek advice on pre-medical issues from the pre-med advisor. A copy of the *UNCW Premedical Sciences Student Manual* should be obtained from the pre-med advisor; this booklet outlines the pre-medical program and includes a timetable and a checklist for the application process. The pre-med advisor maintains a file of information on medical schools, materials for helping students prepare for the MCAT, registration materials for the MCAT, and applications to medical school. Pre-med students are encouraged to discuss their career plans with the pre-med advisor early in their academic program.

PRE-PHARMACY

Advisor: Dr. Sayed

Students interested in careers in pharmacy should consult with the pre-pharmacy advisor before arranging their academic schedules. Basic coursework in biology, chemistry, physics, and mathematics is required, as well as additional studies in the social sciences and humanities in the two-year pre-pharmacy program. Students should arrange through their advisor to take the Pharmacy College Admission Test (PCAT) in November of their second year. Applications to pharmacy schools should be made in the fall or winter of the second year.

PRE-PHYSICAL THERAPY

Advisor: Dr. Stokes

The university offers courses in pre-physical therapy for students who wish to apply to a specialized physical therapy program. The program of study outlined below is designed to meet minimum requirements at UNC-Chapel Hill.

General Requirements: foreign language through 201; ENG 101 and 102; MAT 115 and STT 215 or MAT 161; CHM 101 and 102 with labs; BIO 105 or 206 and 240 with labs; PHY 101 with lab; two courses in social science; one course in philosophy; one course in literature; one course in fine arts; two courses in history; PSY 105; three elective courses; two physical education activities courses.

All the above courses must be completed by the end of the spring semester prior to fall entrance, except one elective which may be taken during the first session of summer school. For application requirements to University of North Carolina at Chapel Hill or to East Carolina University, see advisor.

PRE-PODIATRY

Advisor: Dr. Sybil K. Burgess

Students wishing to attend podiatry school should consult the pre-podiatry advisor early in their academic career.

PRE-VETERINARY MEDICINE

Advisor: Dr. Fugler

The student interested in applying to a school of veterinary medicine may complete basic requirements for admission at The University of North Carolina at Wilmington. Specialized courses not offered at this institution must be taken elsewhere. The only school of veterinary medicine in North Carolina is located at North Carolina State University in Raleigh. Students planning to pursue a career in veterinary medicine should consult with the advisor to plan the program of study.

SPECIAL ACADEMIC PROGRAMS

INTERNATIONAL PROGRAMS

The Office of International Programs was established at The University of North Carolina at Wilmington to represent its commitment to international education. The office has responsibility for coordinating area studies programs, faculty and student exchange programs, and other international activities at the university. The goal is to expand and strengthen international ties among individuals, units, and programs on campus and to encourage the ex-

change and flow of ideas and information so crucial for the development of global knowledge and awareness. Further information can be obtained by contacting the director of international programs in James Hall.

MARINE SCIENCES

Marine science activity at The University of North Carolina at Wilmington consists of instructional and research programs on the university's main campus as well as specialized research activities associated with its Center for Marine Science Research at Wrightsville Beach.

The programs in marine sciences on the university's main campus consist of a marine biology curriculum leading to the B.S.degree, a B.A. degree in chemistry with an emphasis in marine science, a marine biology curriculum leading to the M.S. degree, and a Faculty Marine Science Research Program.

MARINE BIOLOGY CURRICULUM

The UNCW marine biology curriculum is a unique baccalaureate program in the university system. It includes a strong foundation of biology with an emphasis in marine biology at the junior and senior levels. Full use is made of the natural laboratory provided by the adjacent Atlantic Ocean through extensive field work in many marine biology courses. Approved collateral requirements include marine-oriented courses in mathematics, physics, chemistry and the earth sciences. The curriculum is flexible enough to meet the individual needs of the student enabling preparation for graduate studies or for teaching and research careers available to one with the baccalaureate degree. Requirements for the B.S. degree in marine biology are listed under biological sciences in the degree program requirements section of this catalogue.

MARINE BIOLOGY GRADUATE PROGRAM

The graduate program leading to the Master of Science degree in marine biology includes three areas of specialization: marine biology, biological oceanography, and coastal biology. Each of these tracks is designed to provide the necessary latitude to allow students to develop programs of study appropriate to their needs. Further information is given in the graduate catalogue.

CENTER FOR MARINE SCIENCE RESEARCH

The Center for Marine Science Research at The University of North Carolina at Wilmington is dedicated to providing an environment that fosters a multidisciplinary approach to questions in basic marine research. The mission of the center is to promote basic and applied research in the fields of oceanography, coastal and wetland studies, marine biomedical and environmental physiology, and marine biotechnology and aquaculture. Faculty members conducting marine science research in the departments of biological sciences, chemistry and earth sciences participate in this program.

The center fosters research programs of the highest quality and thereby enhances the educational experience provided by The University of North Carolina at Wilmington for both undergraduate and graduate students in marine science.

The center's primary facilities are located on a four-acre tract near the Intracoastal Waterway at Wrightsville Beach. Encompassing 16,000 square feet, these facilities house fourteen research laboratories, various science and administrative offices, a video equipment/editing room, a fully equipped machine tool shop, an aquatic specimens holding room, a seminar/conference room and a USDA licensed animal facility. Additional laboratory space is available for research requiring constant flow-through seawater.

The center maintains eight research vessels ranging in size from thirteen to twenty-two feet and specialized equipment including a Superphantom Remotely Operated Vehicle, a low temperature aquarium room, an atomic absorption spectrophotometer, and an extensive microscopy capability including transmission electron, inverted, phase-contract, and confocal tandem scanning.

The Center for Marine Science Research serves as host for the NOAA sponsored National Undersea Research Center for the Southeastern United States. Based upon competitive proposals, NURC annually supports fisheries management, ocean floor processes, and other research projects from the Gulf of Maine to the Gulf of Mexico.

ENVIRONMENTAL STUDIES CURRICULUM

The environmental studies curriculum emphasizes the importance of multidisciplinary approaches in the study of environmental problems, particularly those dealing with the marine environment. The curriculum exposes students to a broad range of analytical procedures in the natural and social sciences, including an environmental impact seminar, and an area of specialization consisting of course work within approved disciplines. Those who wish to emphasize marine science may do so by electing an approved sequence of courses in marine science. Other available concentrations include: biology, chemistry, earth sciences, economics, mathematics, physics, political science, psychology, sociology and anthropology. Requirements for the B.A. degree in environmental studies are listed in the degree program requirements section of this catalogue.

FIELD EXPERIENCE IN BIOLOGY

The Department of Biological Sciences offers a summer field experience in various biological disciplines at selected areas within and outside the continental United States. Participating students may conduct individual or group research, with faculty guidance, on both marine and terrestrial organisms. Research already has been conducted in such places as the Florida Keys, the Bahamas, and parts of Central and South America.

SUMMER SESSIONS

The Summer Sessions constitute an integral part of the university's academic year. Students may take advantage of several unique programs related to the marine environment and other interesting subject areas. A variety of courses is offered for students who wish to accelerate their progress toward the baccalaureate degree, to supplement the academic load carried during the regular terms, or to removed deficiencies. During the summer sessions, undergraduate students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. In addition, public school teachers may wish to

renew or change fields of certification or pursue a program of graduate studies in the School of Education.Further information concerning the summer sessions may be obtained by contacting the director of summer sessions.

EXTENSION COURSES

The Office of Special Programs coordinates the university's extension (academic) courses through the Contract Extension Program. Freshman and sophomore level courses are offered at three community colleges: Bladen Community College in Dublin, NC; Sampson Community College in Clinton, NC; and Brunswick Community College in Bolivia, NC. The community colleges recruit and enroll students who are high school graduates or the equivalent. Students enrolled in the program who wish to become degree candidates at the university must apply and meet regular admission requirements for freshmen or transfer students.

Additional extension offerings also include undergraduate and graduate courses in the field of education at off-campus sites. Utilizing primarily UNCW faculty, these courses meet the staff development and/or graduate education requirements of local teachers.

Extension registrations are received by the Office of Special Programs while requests for transcripts should be sent to the Registrar of The University of North Carolina at Wilmington.

Further information concerning all programs may be obtained by contacting the director of special programs.

SCIENCE AND MATHEMATICS EDUCATION CENTER

The Science and Mathematics Education Center at UNCW is a member of the University of North Carolina Mathematics and Science Education Network. The center offers a wide range of professional development programs for inservice middle school and high school mathematics and science teachers. Through center sponsored seminars, workshops, and courses, teachers can achieve initial certification in science or mathematics, renew existing certificates, or earn credit toward a graduate degree.

Information concerning upcoming programs may be obtained by contacting the director of the Science and Mathematics Education Center.

Faculty

FACULTY

Sheila Anne Adams, *associate professor of management,* B.S., M.B.A., University of Nevada-Reno; Ph.D., University of Washington.

Louis Henry Adcock, *professor of chemistry,* B.S., M.A., Duke University; Ph.D., Louisiana State University.

Gur Saran Adhar, *assistant professor of mathematical sciences,* B.Sc., Agra University, India; M.B.A., Indian Institute of Management, Bangalore, India; M.S., Ph.D., University of Maryland.

Syed Shahzad Ahmad, *assistant professor of political science,* B.A., M.A., Aligarh University; Ph.D., University of Tennessee.

William Franklin Ainsley, Jr., *professor of geography,* A.B., M.A., University of North Carolina at Chapel Hill; M.Div., Southeastern Baptist Theological Seminary; Ph.D., University of North Carolina at Chapel Hill.

Moorad Alexanian, *professor of physics,* B.S., University of Rhode Island; M.S., Ph.D., Indiana University.

David Bruce Allen, *lecturer in physical education,* B.S., M.S., Springfield College.

Thomas Earl Allen, *professor of physical education,* A.B., M.Ed., University of North Carolina at Chapel Hill; Ph.D., Florida State University.

Walser H. Allen, *associate professor of history,* B.A., Moravian College; M.Div., Moravian Theological Seminary; M.A., University of North Carolina at Chapel Hill.

Ferenc Altrichter, *associate professor of philosophy and religion,* B.A., B.S., M.A., M.S., Eotvos Lorand University of Budapest; Ph.D., Hungarian Academy of Sciences.

Moshe Amon, *associate professor of religion,* B.A., The Hebrew University, Israel; Ph.D., Claremont Graduate School.

Arvid Asa Anderson, *associate professor of marketing,* B.B.A., M.B.A., Ph.D., The University of Texas at Austin.

Elizabeth T. Anderson, *adjunct lecturer in medical technology,* B.A., University of North Carolina at Greensboro; B.A., Bowman-Gray School of Medical Technology; MT (ASCP), M.A., University of North Carolina at Charlotte.

John Michael Anderson, *associate professor of management science,* B.S., United States Naval Academy; A.B., University of North Carolina at Wilmington; M.B.A., East Carolina University; Ph.D., North Carolina State University.

David Michael Andrews, *associate professor of science education and adjunct associate professor of biology,* B.A., Southern Connecticut State University; M.Ed., Ed.D., University of Maine at Orono.

James Milton Applefield, *associate professor of education,* B.A., University of North Carolina at Chapel Hill; M.A., Emory University; M.Ed., University of Georgia, Ph.D., Georgia State University.

Pauline F. Applefield, *assistant professor of psychology,* B.A., Bethany College; M.S., Ph.D., Pennsylvania State University.

Robert W. Appleton, *associate professor of accountancy,* B.S., Belmont College; M.B.A., Memphis State University; CPA.

William D. Atwill, *assistant professor of English,* B.A., University of South Florida; M.A., Florida Atlantic University; Ph.D., Duke University.

Saul Bachner, *professor of education,* B.A., M.Ed., Ph.D., Wayne State University.

Ravija Badarinathi, *associate professor of management science,* B.S., M.S., Allahabad University; Ph.D., University of Georgia.

Kristin Szylvian Bailey, *assistant professor of history,* B.A., University of Lowell; M.A., Duquesne University; Ph.D., Carnegie Mellon University.

Jack D. Baker, *associate professor of accountancy,* B.A., University of Colorado; M.S. Ph.D., University of Missouri at Columbia; CPA.

Timothy Alan Ballard, *assistant professor of biology,* B.A., Appalachian State University; Ph.D., Bowman Gray School of Medicine of Wake Forest University.

Paz Irabagon Bartolome, *professor of education,* B.S., E. Ed., Philippine Normal; M.Ed., Miami University; Ph.D., Ohio State University.

Donna Gregg Basch, *adjunct lecturer in medical technology,* B.S., Carson Newman College; MT (ASCP) SC, Bowman Gray School of Medical Technology.

Angela Dawn Benson, *lecturer in management science,* B.S., University of North Carolina at Wilmington; M.B.A., East Carolina University; Ph.D. candidate, University of Georgia.

Kathleen Christine Berkeley, *associate professor of history,* B.A., M.A., Ph.D. University of California, Los Angeles.

David Roy Berman, *assistant professor of mathematical sciences,* B.A., University of Texas at Austin; M.A., University of California at Berkeley; Ph.D., University of Texas at Austin.

Steven A. Bianco, *assistant professor of mathematical sciences,* Sc.B., Brown University; M.A., Ph.D., Cornell University.

Walter Clark Biggs, Jr., *professor of biology,* B.A., East Carolina University; M.S., Texas A & M University; Ph.D., North Carolina State University.

Kimon T. Bird, *associate professor of biology,* B.A., University of Texas, Austin; M.S., University of Southern California; Ph.D., University of South Florida, Tampa.

N. Jackson Blackmore, *lecturer in physical education,* B.A., M.Ed., University of North Carolina at Wilmington.

David Blake, *lecturer in geology,* B.S., University of North Carolina; M.S., North Carolina State University.

Delilah Bowen Blanks, *assistant professor of social work,* A.B., Shaw University; A.B., East Carolina University; M.S.W., Ph.D., University of North Carolina at Chapel Hill.

David C. Bojanic, *assistant professor of marketing,* B.S., Pennsylvania State University; M.B.A., James Madison University; D.B.A., University of Kentucky.

Sharon Lee Bojanic, *assistant professor of finance,* B.S., M.B.A., D.B.A., University of Kentucky.

Eric George Bolen, *professor of biology,* B.S., University of Maine; M.S., Ph.D., Utah State University.

Madeleine Yvonne Bombeld, *lecturer and reference librarian,* B.A., M.Ed., M.L.S., University of North Carolina at Greensboro.

Frank Joseph Bongiorno, *assistant professor of music,* B.M., Ithaca College; M.M., North Texas State University; D.M., Indiana University.

James A. Boylston, *adjunct professor of medical technology,* B.S., University of South Carolina; M.D., Duke University.

Michael Bradley, *professor of psychology,* B.A., M.Ed., Ed.D., University of Georgia.

Toni L. Bratton, *assistant professor of drama,* B.A., Texas Tech University; M.F.A., University of Texas, Austin.

Ralph W. Brauer, *adjunct professor of biology,* A.B., Columbia University; M.Sc., Ph.D., University of Rochester.

Michael Brophy, *assistant professor of French,* B.A., M.A., University College, Dublin; Ph.D., Dalhousie University, Nova Scotia.

Debbie Sherman Brown, *lecturer in physical education,* B.S., University of North Carolina at Greensboro, M.S. Ed., James Madison University.

Eileen G. Brown, *lecturer and cataloging librarian A.B.,* University of Massachusetts at Amherst; M.L.I.S., Catholic University of America.

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Sybil K. Burgess, *associate professor chemistry,* B.S., Meredith College; Ph.D., North Carolina State University.

Grace M. Burton, *professor of education,* A.B., Annhurst College; M.A., Ph.D., University of Connecticut.

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Larry E. Cable, *assistant professor of history,* B.A., Shimer College; M.A., Western Michigan University; Ph.D., University of Houston.

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Karin M. Deck, *assistant professor of mathematical sciences,* B.S., Lewis & Clark College; M.S., Ph.D., University of Oregon.

Cynthia M. DeSouza, *assistant professor of mathematical sciences,* B.Sc., St. Xavier's College University of Bombay, India; M.Sc., University of Bombay; M.S., Purdue University, W. Lafayette; Ph.D., University of Missouri, Columbia.

Mary DeWane-Lander, *lecturer in English,* B.A., Louisiana State University; M.A., Western Illinois University.

Richard M. Dillaman, *professor of biology,* B.A., University of Virginia; Ph.D., University of South Carolina.

James C. Dixon, *professor of political science,* A.B., M.A., Marshall University; Ph.D., Emory University.

Richard David Dixon, *professor of sociology,* B.A., University of Connecticut; M.A., Marshall University; Ph.D., Emory University.

James Allen Dockal, *associate professor geology,* B.S., M.S., Iowa State University; Ph.D., University of Iowa.

Diane Marie Beaudoin Dodd, *assistant professor of biology,* B.A., Agnes Scott College; M.S., M.Phil., Ph.D., Yale University.

Charles Brooks Dodson, *professor of English,* B.A., DePauw University; M.A., Indiana University; Ph.D., University of Nebraska.

Calvin L. Doss, *professor of education,* B.S., Berry College; M.Ed., University of Georgia; Ph.D., University of North Carolina at Chapel Hill.

Joseph B. Dudley, *adjunct professor of medical technology,* B.A., Davidson College; M.D., University of Pennsylvania.

David M. DuMond, *adjunct research associate in biology,* B.A., University of North Carolina at Chapel Hill; M.S., North Carolina State University.

Carolyn S. Dunn, *associate professor of biology,* B.S., M.A., University of Louisville; Ph.D., Ohio State University.

Michael Dykstra, *adjunct research associate in biology,* B.A., M.S., University of Iowa; M.S., University of Georgia; Ph.D., University of North Carolina at Chapel Hill.

Paul B. Eaglin, *assistant professor of business law,* B.A., The Johns Hopkins University; J.D., Duke University.

Rodney S. Earle, *associate professor of Education,* Dip.T., Kelving Grove Teachers College; B.A., M.Ed., Brigham Young University; Ph.D., Indiana University.

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Fara M. Elikai, *associate professor of accountancy,* B.S., The Institute of Advanced Accounting-Tehran; M.S., University of Kansas; Ph.D., University of Oklahoma.

Janet M. Ellerby, *assistant professor of English,* B.S., University of Oregon, Eugene; M.A., California State University, Northridge; Ph.D., University of Washington.

Marc R. Ellington, *lecturer in physical education,* B.S., M.Ed., Springfield College.

Norman E. Ellis, *associate professor of education,* B.S., M.A., Ball State University; Ph.D., University of North Carolina at Chapel Hill.

Patricia Carol Ellis, *assistant professor of English,* B.A., M.A., Ph.D., University of Georgia.

Richard A. Engdahl, *assistant professor of management,* B.A., M.B.A., University of Michigan; Ph.D., University of Washington.

C. Steven Errante, *associate professor of music,* B.M., M.A., University of Michigan; D.M.A., The Juilliard School.

William Lester Etheridge, *assistant professor of mathematical sciences,* B.S., M.S., University of Illinois; Ph.D., Purdue University.

Steven H. Everhart, *adjunct associate professor of biology,* B.S., University of North Carolina at Wilmington; M.S., Ph.D., North Carolina State University.

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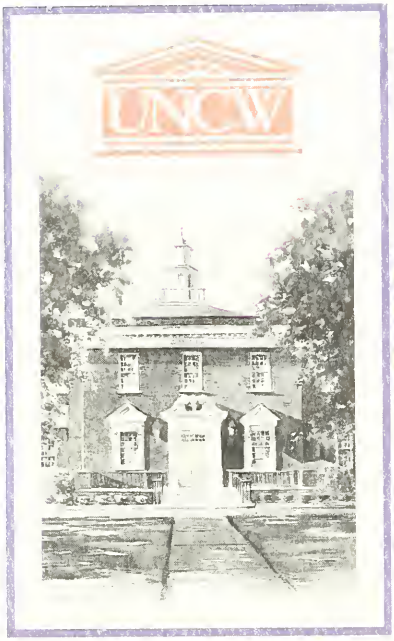

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